2018 ANNUAL CAHSPR CONFERENCE

SHAPING THE FUTURE OF CANADA'S HEALTH SYSTEMS

CAHSPR ACRSPS
Canadian Association for Health Services and Policy Research
L'Association canadienne pour la recherche sur les services et les politiques de la santé

Book of Abstracts

Sorted by:

- Type of Abstract and
- Last Name of Primary Author

ID: 594
Author: Dr. Reham Abdelhalim
Title: Measuring Patient Experience: A Framework to Assess Patient Experience with Integrated Care
Type of Abstract: Oral

Objectives: Inclusion of the patient's voice in evaluations of healthcare interventions, including integrated care initiatives, has increasingly gained momentum in Canada and across the world in recent years. A framework was constructed to guide measurement of patient experience in evaluation of integrated care interventions.

Approach: A multi-step literature review was conducted including peer-reviewed articles and grey literature published in English between 1990 and 2017 investigating integrated care, patient-centered care, or patient experience. The goals of the review were to: (1) identify the main processes of care that are common across integrated care interventions; (2) portray the processes that have important influence on the patient experience; (3) describe the mechanisms by which these processes can impact patient experience (4) characterize potential confounding factors relating to the integrated care intervention or the patient's characteristics

Results: The study resulted in the construction of a framework that combines three highly important concepts; integrated care, patient-centered care and patient experience. Patient-centered care is viewed as the main philosophy behind integrated care that drives all the processes of care and enhance patient experience. Three key processes of care were identified as having direct impact on patient experience with integrated care. These processes are: personalized care planning, patient-engagement, and care coordination. These processes impact patient experience through mechanisms like; communication, shared decision making, improved access, and information sharing. Patient's sociodemographic and health characteristics can impact their experience and need to be accounted for. Structural characteristics of the intervention can indirectly impact the patient experience through influencing the philosophy and processes of care.

Conclusion: This framework can be used as a theoretical base when developing tools (qualitative or quantitative) that aim at measuring patient experience. It can also be a useful guide when planning, implementing, or evaluating integrated care interventions that put the patient at the centre and aim at enhancing the patient experience.

All Authors: Reham Abdelhalim, Institute of Health Policy, Management and Evaluation, University of Toronto; Walter Wodchis, University of Toronto

ID: 172
Author: Mrs. Kamala Adhikari Dahal
Title: Disparities in caesarean section rates by maternal socioeconomic status differs across diverse obstetric indications
Type of Abstract: Oral

Objectives: Previous literature reports an inconsistent association between caesarean section (c-section) rate and maternal socioeconomic status (SES); however, this inconsistency may be the result of a failure to examine the association across indications for c-section. This study examined the variation in c-section rates by maternal SES across diverse-obstetric indications.

Approach: This cross-sectional study used data from the 2015 US Birth Certificate (representing all deliveries in the US: n=3,850,114). Data on demographics, SES (maternal education and health insurance status), medical conditions (e.g., diabetes, hypertension, and eclampsia), and obstetric characteristics (e.g., parity, fetal presentation, onset of labor, and previous c-section) were extracted. Multivariable log-binomial regression models were used to examine the association between the c-section rate and SES across the Robson's 10-groups (10 clinically relevant, mutually exclusive obstetric indication/groups for c-section) after adjustment for confounding variables, such as maternal age and medical conditions.

Results: The overall c-section rate was 32.0%. No statistically significant differences were observed by either measure of SES (education (p=0.12) and insurance (p=0.09)). However, a significant disparity in the use of c-section across SES was observed for particular obstetric-indications, even after adjustment for confounders. For example, women with

graduate-education compared to those who did not complete high-school were more likely to have a c-section (RR: 2.4, 95% CI: 2.3-2.4) for low-risk indications (group 1: nulliparous with normal obstetric characteristics). Whereas, they were less likely to have a c-section (RR: 0.7, 95% CI: 0.6-0.9) for a strongly-medically-indicated condition (group 9: abnormal fetal lies). Women without private insurance or Medicaid coverage were less likely to have a c-section in almost all obstetric-groups, compared to those with private insurance.

Conclusion: Examining the overall c-section rate obscures the relationship between SES and use of c-section for particular-indications. The unequal utilization of c-sections across maternal SES highlights inequities in obstetric care received by American women. The promotion of maternal health literacy and clinician's advocacy may bridge the disparities in c-section across SES-groups.

All Authors: Kamala Adhikari Dahal , University of Calgary ; Amy Metcalfe, ; Sheila McDonald , Alberta Health Services ; Alka Patel, Alberta Health Services; Deborah McNeil , Alberta Health Servuces

ID: 439
Author: Ms. Hina Ansari
Title: Trends in utilization of Consultation-Liaison Psychiatry Services at an Ontario Paediatric Hospital
Type of Abstract: Oral

Objectives: Co-occurring medical and psychiatric disorders are a driver of higher hospital resource consumption. Consultation-Liaison Psychiatry (CL-P) services aim to treat this population of medically or surgically-ill patients with psychiatric comorbidities within hospital settings. The study objective was to quantify and describe the profile of the patients seen by CL-P.

Approach: Using hospital administrative data, we identified the inpatient admissions where patients (aged 0-18 years) were served by CL-P at our hospital between fiscal years 2012/13 and 2016/17. Admissions were characterized into fiscal years based on the admit date for that particular admission. Sociodemographic characteristics (age, gender, local health integration network), utilization volume (based on number of unique patients, as well as number of admissions), reasons for referral, length of stay (LOS), diagnostic complexity (in terms of the number of mental and physical health diagnoses on the patient's record, and Case Mix Groups), and readmission rates were analyzed using descriptive statistics.

Results: Our findings indicate that the number of admissions requiring CL-P services increased by 31% in 2016/17 as compared to the previous 4 year average. This patient population was characterized by a LOS that was 3 times longer than the average hospital inpatient (20.3 days vs. 6.3 days). 49% of patient admissions in 2016/17 corresponded with an inpatient stay between 2 and 15 days, while 34% of admissions with >15 inpatient days. The youngest age group (<1 year old) was associated with the longest LOS, as compared to the 1-7 or 8-18 year olds. The psychiatric diagnoses that were associated with the longest length of stay and the highest resource intensity were delirium, anxiety, depression, adjustment disorders, post-traumatic stress disorder and somatization and somatoform-related disorders.

Conclusion: Improving a service requires an understanding of the composition, complexities and needs of the population served. Findings will help establish the hospitalization norms for this population and ensure that hospitals receive adequate funding and mental health resources to help support this severely ill group of patients.

All Authors: Hina Ansari, Hospital for Sick Children; Claire De Souza, The Hospital for Sick Children; Sayani Paul, Hospital for Sick Children; Hana Saab, The Hospital for Sick Children

ID: 615
Author: Dr. Katie Aubrecht
Title: Leadership, Collaboration & Creativity: Critical to Person- and Family-Centred Continuing Care Service Delivery for Older Adults with Dementia and Psychiatric Comorbidities
Type of Abstract: Oral

Objectives: 1) Clarify promising directions in continuing care service delivery for older adults living with complex dementia care needs, and 2) Develop an evidence base to support policy development for person- and family-centred continuing care service delivery for the growing cohort of older adults living with dementia and psychiatric comorbidities.

Approach: This presentation shares results from a rapid scoping review, descriptive summary and qualitative thematic analysis of academic research and grey literature published 2000-2018 on the question of what quality person- and family-centred care looks like for older adults with complex chronic care situations involving dementia and psychiatric comorbidities.

Results: National and international research reports the rising global prevalence of older adults living with complex chronic care situations that include dementia and psychiatric diagnoses. System sensitivity and responsiveness to the complexities of care for this growing cohort will influence how the dementia journey evolves and is experienced by people with dementia, as well as the paid and unpaid caregivers who support them. The co-presence of dementia and psychiatric disability, and difficulties health professionals, care providers, families and individuals often experience in distinguishing between dementia and mental illness, present unique challenges and opportunities for integration of service delivery within continuing care. Sectoral silos and risk-averse cultures of care pose significant barriers to quality care delivery and self-perceived quality of care.

Conclusion: Inter- and cross-sectoral collaboration, and opportunities for providers and families to lead, be creative in their approaches to care and take dignified risks, represent exciting directions in person- and family-centred continuing care service delivery.

All Authors: Katie Aubrecht, St. Francis Xavier University; Janice Keefe, Mount Saint Vincent University; Susan Stevens, Nova Scotia Health Authority

ID: 98
Author: Ms. Li-Anne Audet
Title: Association between nurse education and experience and the risk of mortality and adverse events in acute care hospitals : a systematic review of the litterature
Type of Abstract: Oral

Objectives: Systematically review the literature on the associations between nurse education and experience and the occurrence of mortality and adverse events, as well as the literature examining the benefits to patients and organizations of the Institute of Medicine's recommendation that 80% of registered nurses should hold a baccalaureate degree by 2020.

Approach: A systematic search of English and French literature was conducted in six electronic databases. Studies were included if they: a) were published between January 1996 and August 2017; b) were based on a quantitative research design; c) examined the associations between registered nurse education or experience and at least one independently measured adverse event, and; d) were conducted in an adult acute care setting. Data were independently extracted, analysed, and synthesized by two authors. The methodological heterogeneity of the reviewed studies precluded the use of meta-analysis techniques. However, the methodological quality of each study was assessed using the STROBE criteria.

Results: Out of 2,109 retrieved articles, 27 studies met our inclusion criteria. These studies examined 18 distinct adverse events, with mortality and failure to rescue being the most frequently investigated events. Higher levels of education were associated with lower risks of failure to rescue and mortality in 75% and 61.1% of the reviewed studies pertaining to these adverse events. Nurse education was inconsistently related with the occurrence of the other events, which were the focus of only a small number of studies. Only one study examined the 80% threshold proposed by the Institute of Medicine and found evidence that it is associated with lower odds of hospital readmission and shorter lengths of stay, but unrelated with mortality. Nurse experience was inconsistently related with adverse event occurrence.

Conclusion: Further longitudinal studies are needed to ascertain the existing associations with mortality and better document the association of nurse education and experience with other nursing-sensitive adverse events, as well as the benefits to patients and organizations of the Institute of Medicine's recommendation.

All Authors: Li-Anne Audet, McGill University; Patricia Bourgault, University of Sherbrooke; Christian Rochefort, University of Sherbrooke

ID: 131
Author: Ms. Tujuanna Austin
Title: Program Integration in Primary Care: Challenges, Enablers, and Leadership
Type of Abstract: Oral

Objectives: Integrating similar programs within or across organizations may improve quality, access and efficiency. However, doing so can create challenges such as resistance to change and ambiguity in leadership and roles. This study examines challenges and enablers, readiness for change factors, and leadership dynamics in the integration of two health programs.

Approach: This study examined the integration of two programs – Health Links and Primary Care Outreach – within a Local Health Integration Network in Ontario. Using qualitative methodology, data were collected from community health centres that experienced the integration. Through semi-structured interviews with managers, administrators, and healthcare providers; non-participant meeting observations where the planning and implementation of the Health Links approach were discussed; and analysis of training and other documents, data pertinent to the integration were collected, categorized, and analyzed according to themes of challenges and enablers, individual readiness for change, and leadership dynamics.

Results: Results captured the challenges of integrating a new, provincially-mandated program with an existing local program, including tensions between ministerial priorities and local leadership autonomy; discrepancies in resource availability and long-term sustainability; and diverging expectations between management and frontline healthcare providers. Several aspects of readiness (i.e., valence, discrepancy, and appropriateness) were linked to leadership, in that clear understandings of the value and necessity of the integration, and high involvement of frontline staff in the planning and execution were linked to more positive accounts of local leadership. There was divergence across the Local Health Integration Network with respect to overall readiness for the integration. This may be explained by contextual factors including variations in rurality, community health centre size, and patient demographics.

Conclusion: In the context of program integration, readiness and leadership should be considered proactively, or prior to the change process. Organizations undergoing program integration in healthcare settings should ensure that readiness and clear leadership structures are in place at all levels and throughout the integration process.

All Authors: Tujuanna Austin, University of Ottawa; Agnes Grudniewicz, Telfer School of Management, University of Ottawa; Samia Chreim, University of Ottawa

ID: 457
Author: Ms. Brittany Barber
Title: Experiences of health and aging: Younger adults with disabilities in long-term care
Type of Abstract: Oral

Objectives: The objectives of this study were to explore multi-level experiences of health and aging among younger adults with disabilities living in long-term care facilities. Given this younger population will live for longer periods of time in long-term care, research must explore which factors influence processes of health and aging.

Approach: Using qualitative research methods, this study applies the social-ecological theory for a multi-level analysis exploring individual, interpersonal, and institutional experiences of health and aging for younger adults in long-term care. Through semi-structured interviews and photovoice methods, this study addresses a knowledge gap by applying health promotion theory to understand complex systems of health and aging for a marginalized population within long-term care. A multi-level analysis was gathered from individual perceptions of health and aging for younger adults, interpersonal relationships of younger adults with older residents, and institutional factors influencing experiences of health and aging for younger residents.

Results: Results from this study provide an in-depth understanding of experiences for younger adults in long-term care, including largely negative individual perceptions and experiences of health and aging. Through interpersonal relationships with older residents, younger adults shared both positive and negative experiences of health and aging. Within an institutional setting, participants experienced largely negative environmental characteristics influencing poorer health and aging. Overall, younger adults shared the importance of recommending five structural changes to re-orient health care services in long-term care including: 1) younger adults living in closer proximity to other younger adults; 2) improving access to kitchen amenities; 3) increase in number of private bathrooms; 4) increase in number of staff providing care during morning and evening times; and 5) increase in activities for recreational programs.

Conclusion: The novelty and importance of this study was focused on engaging younger adults in research to deconstruct multiple factors that influence health and aging within long-term care. This study provides a new way of exploring biopsychosocial aspects of health and aging, and re-orienting healthcare policies and services across long-term facilities.

All Authors: Brittany Barber, Dalhousie University

ID: 229
Author: Dr. Brenna Bath
Title: Gaps in access to care: self reported use of family physicians, chiropractors and physiotherapists among adult Canadians with chronic back disorders
Type of Abstract: Oral

Objectives: Chronic back disorders (CBD) are prevalent, costly, and among the most common reasons for seeking primary care. The objectives of this research were to investigate the patterns of primary care use and to profile factors associated with self-reported use of family physicians, chiropractors, and physiotherapists among adult Canadians with CBD.

Approach: The combined 2009 and 2010 Canadian Community Health Surveys conducted by Statistics Canada were used to investigate self-reported health care use among adults with CBD. This complex survey employs population weights to help ensure representativeness of the Canadian population as well as bootstrapping to obtain variances. Following descriptive analyses, we used multiple logistic regression to establish comprehensive models predicting health care use while controlling for possible confounding. Understanding differences in self-reported use may help to identify potential gaps in access to care and inform the development of strategies to optimize equitable access.

Results: The majority of adult respondents with CBD sought care only with a family physician (53.8%) with an additional 20.9% and 16.2% seeking care with combined family physician/chiropractor or family physician/physiotherapist, respectively. Few respondents sought care only with a chiropractor (2.5%) or physiotherapist (1.0%). After adjustment, differential patterns of utilization (p<0.05) among those with CBD were evident between provider groups. Characteristics of adults with CBD who reported reduced use of care include: older adults (physiotherapists); men (physiotherapists and family physicians); lower educational attainment (physiotherapists and chiropractors); lower income (physiotherapists and chiropractors); Aboriginal or other ethnicity (chiropractors); rural residence (physiotherapists); smokers (chiropractors and physiotherapists); greater than three co-morbidities (chiropractors); and lower physical activity levels (chiropractors and physiotherapists).

Conclusion: This research highlights disparities in access to physiotherapists and chiropractors in relation to family physicians among adult Canadians with CBD. Ensuring equitable access to potentially beneficial non-physician services for people with CBD may require a rethink about the way front line back care is delivered in our health care system.

All Authors: Brenna Bath, University of Saskatchewan; Dennis Ma, University of Bristish Columbia; Catherine Trask, University of Saskatchewan; Joshua Lawson, College of Medicine

ID: 230
Author: Dr. Brenna Bath
Title: Geospatial access to physiotherapy services in Canada: mapping physiotherapist use and distribution
Type of Abstract: Oral

Objectives: Ensuring equitable access to non-physician care providers, such as physiotherapists, has traditionally received less policy attention in comparison to medical services. The objective of this research was to analyze how variations in the distribution of physiotherapists at health region levels are associated with self-reported physiotherapy use across Canada.

Approach: This study is based on the physiotherapy use question from the 2014 Canadian Community Health Survey. Physiotherapy distribution was measured in terms of the number of physiotherapists per 10,000 population at health region level (i.e. physiotherapist ratio). Physiotherapist primary employment information was obtained from the Canadian Institute for Health Information's 2015 Database. Geospatial mapping in combination with correlation analysis was applied to explore the association between self-reported physiotherapy use and physiotherapist ratio across Canadian health regions. Understanding how physiotherapy use and physiotherapist distribution are related is important given that most provinces have a regionalized approach to health service delivery.

Results: Physiotherapy use is moderately associated with the distribution of physiotherapists ($r(103) = 0.453$, $p < 0.001$). Variables were converted into three categories using ± 0.5 standard deviations from national mean as cut-off values. Across 103 health regions, cross-tabulation of use with the distribution of physiotherapists (i.e. physiotherapist:population ratio) revealed that: 13.5% have high use/high ratio; 16.5% have a low use/low ratio; 5.8% have high use/low ratio; 2.9% have low use/high ratio. Health regions that have both low use and low distribution of physiotherapists tend to be in more rural, remote or northern parts of the provinces and those with high use and high distribution ratios tend to be in more urban areas.

Conclusion: There is variation in the distribution of physiotherapists and self-report use across Canada, indicating potential inequities in geographic accessibility to physiotherapy services. Comparison of health region differences within and between provinces at a health region level may help guide where and how access to physiotherapy services could be optimized.

All Authors: Brenna Bath, University of Saskatchewan; Tayyab Shah, University of Saskatchewan; Stephan Milosavljevic, University of Saskatchewan; Catherine Trask, University of Saskatchewan

ID: 264
Author: Ms. Harsukh Benipal
Title: Effectiveness and Safety of Oral Anticoagulants for Seniors Following Hospital Discharge
Type of Abstract: Oral

Objectives: The peri-hospitalization period is recognized as high risk for patients, including those on chronic medication therapy. Over 7 million oral anticoagulant (OAC) prescriptions are dispensed in Canada yearly. We sought to measure the rate of hemorrhage and thrombotic events in senior OAC users in the year following hospital discharge.

Approach: We conducted a retrospective cohort study among Ontario residents, aged 66 years and older, who initiated or resumed OAC therapy post-discharge from an inpatient hospitalization between September 2010 and March 2015. Encoded patient data were linked, including prescription drug claims, vital status, demographics, and hospitalizations. We calculated hemorrhage and thrombosis hospitalization rates per 100 person-years overall and stratified into the first 30-days post-discharge period and the remainder of the 1-year follow-up. Hemorrhagic events included intracranial, upper and lower gastrointestinal, and other major bleeds. Thrombotic events included ischemic stroke, myocardial infarction, systemic embolism, venous thromboembolism, and coronary procedures.

Results: 119 598 patients were included in the study, median age 78 years, 55.5% female, 26.3% with Charlson comorbidity score > 2. The overall rates of haemorrhage and thrombosis were 18.6 (95% confidence interval [CI] 18.1-19.0) and 18.1 (95% CI 17.6-18.5) per 100 person-years, respectively. Risk for both hemorrhagic and thrombotic events were significantly lower in females than males, with p-value < 0.0001 for each outcome. The rate of hemorrhage was highest during the first 30-days post discharge (26.5 [95% CI 25.5-27.6]), falling to 15.9 (95% CI 15.4-16.4) per 100 person-years during the remaining 1-year follow-up. Likewise, the risk of thrombosis per 100 person-years was highest during the first 30-days post-discharge: 33.6 [95% CI 32.4-34.7] versus 12.9 (95% CI 12.4-13.3) during the remaining 1-year follow-up.

Conclusion: In this large cohort of older adults receiving OAC therapy, rates of hemorrhage and thrombosis were high during the year following hospital discharge, and were particularly elevated during the first 30 days. Interventions to improve anticoagulant safety in the early post-discharge period seem warranted.

All Authors: Harsukh Benipal, McMaster University; Anne Holbrook, McMaster University; Michael Paterson, Institute for Clinical Evaluative Sciences (ICES); Diana Martins, Institute for Clinical Evaluative Sciences ; Tara Gomes, St. Michael's Hospital; Simon Greaves,

ID: 467
Author: Ms. Colene Bentley
Title: Support for reassessing post-approval cancer drugs: results from a series of public deliberations on cancer drug funding in Canada
Type of Abstract: Oral

Objectives: Expenditures on cancer drugs have skyrocketed due to high drug prices and rates of use. Canada's national drug review process doesn't reassess approved drugs for cost-effectiveness, thereby limiting opportunities for policymakers to disinvest from in-use low-value therapies. We consulted Canadians on how to make drug funding decisions fair and sustainable.

Approach: Six deliberative public engagement events were held across Canada in 2016, with a total of 139 participants. A hybrid two-day model of deliberation was developed specifically for this project and was based on the McMaster Health Forum's citizen panels and the deliberative public engagement approach developed by Burgess and O'Doherty. Transcripts were coded in NVivo and analyzed to determine where participants' views converged and diverged. Recommendations were grouped thematically.

Results: Participants made 86 recommendations on a range of themes. Across all events, participants accepted the premise of resource scarcity and the need for trade-offs. They supported reassessing approved drugs as part of regular drug funding processes and based on principles of fairness, transparency, and funding drugs that are more versus less cost-effective. They recommended "delisting or reduced pricing" of approved drugs that are "found to be less effective than originally thought" (pan-Canadian event), and cost saving through disinvestment is "justified" even if the less expensive comparable drug "offers slightly less quality of life and quantity of life" (Ontario event). As a matter of fairness, participants specified including a grandfather clause so that patients on a delisted drug can complete their course of treatment.

Conclusion: Participants strongly supported developing cancer drug funding processes that compare new and post-approval drugs for real-world cost-effectiveness to improve efficiencies within cancer drug budgets. This support can bolster Canadian policymakers' efforts to build decision frameworks that compare drugs for adoption or replacement to better manage scarce healthcare resources.

All Authors: Colene Bentley, Canadian Centre for Applied Research in Cancer Control - BC Cancer ; Julia Abelson, McMaster University; Michael Burgess, University of British Columbia; Sarah Costa, BC Cancer; Canadian Centre for Applied Research in Cancer Control; Stuar

ID: 389
Autheur: Mrs. Roxane Borgès Da Silva
Titre: Les infirmières et médecins sont-ils utilisés de façon optimale à l'hôpital ?
Type d'abstrait: Oral

Objectifs: L'objectif de cette étude était de dresser un portrait des activités réalisées par les professionnels de la santé pendant leur temps de travail. Quelle est la part des activités cliniques et non cliniques réalisées pendant leur temps de travail ? Comment ces activités affectent-elles l'efficience de l'organisation des soins?

Approche: Pour répondre à ces questions, nous avons réalisé une revue de la littérature de type examen de la portée (scoping review). Un total de 2346 articles a été recensé en appliquant des équations de recherche aux trois bases de données bibliographiques, Cinahl, PubMed et EconLit. Après un processus rigoureux de sélection, 26 études ont été retenues. La quasi-totalité des études (24) a été menée en milieu hospitalier à travers dix pays. Treize études ont porté sur les activités cliniques et non cliniques des infirmières, onze sur celles des médecins et deux sur les activités des deux professions.

Résultats: Les soins directs occupent 25 % à 41 % du temps de travail des infirmières et 15 % à 34 % du temps des médecins. Les soins indirects occupent 22 % à 59 % du temps des infirmières et 57 % à 69 % pour les médecins. Les activités non cliniques comptent pour 4 % à 38 % du temps des infirmières et 0,3 % à 15 % pour les médecins. Plusieurs activités représentent des sources d'inefficience. L'ajout de personnel paraprofessionnel à l'équipe de soins ressort comme une avenue intéressante pour permettre aux professionnels de se concentrer sur les tâches relevant de leurs compétences et sur les soins directs au patient.

Conclusion: Cette revue de littérature a mis en évidence le fait que les activités cliniques liées aux soins directs au patient qui sont au cœur des pratiques professionnelles reconnues efficaces et efficientes, ne constituent pas la plus grande part des activités des infirmières dans les milieux hospitaliers.

Autheurs: Roxane Borgès Da Silva, Université de Montréal ; Carl-Ardy Dubois, Université de Montréal

ID: 436
Author: Ms. Ingrid Botting
Title: "Missing in Action: The absence of evidence of support for health system leaders in health system partnership research"
Type of Abstract: Oral

Objectives: The aim of this research was to identify and review available website resources providing guidance and support to health system leaders in establishing and managing research partnerships with academic researchers.

Approach: Websites expected to provide resources for Canadian health leaders on selecting and managing academic research partnerships (n=38) were reviewed using a standardized template. Websites included those: from Canadian research funding bodies; that address health system organization and functioning; and that promote knowledge translation or evidence use in healthcare. Inclusion criteria for resource review were if content: a) addressed health system change or health service organization; and b) provided practical guidance for academic–health system research partnerships. Exclusion criteria included content limited to: a) clinical research; b) knowledge 'transfer' activities; or c) resources to build decision-maker research literacy.

Results: Although many sites refer to "partners", "collaborations" or "sponsors," few provided resources meeting inclusion criteria. The absence of resources to support health leader–academic researcher collaboration was in sharp contrast to resources available for other forms of partnership, and the few resources available were directed at researchers rather than health leaders. Knowledge translation resources continue to emphasize end-of-project knowledge transfer rather than partnership. Evidence of a potential surge of interest in a more active role for health systems in research activities was identified in some key international documents and blog posts. Explanations for the greater number of resources to support patient or community engagement, inter-professional collaboration, or collaboration with clinicians or policy makers —rather than health system/academic research partnerships—are explored.

Conclusion: The review suggests that research partnerships for purposes of improving health systems or organizing health services, in contrast to other partnerships, has not been identified as a priority issue. Strategies to support meaningful participation and engagement of health leaders in health system research are needed.

All Authors: Ingrid Botting, University of Manitoba; Martha MacLeod, University of Northern British Columbia; Sarah Bowen, Applied Research and Evaluation Consultant; Ian Graham, University of Ottawa/ OHRI; Karen Harlos, University of Winnipeg

Objectives: Engagement in primary health care may be lower among people who use drugs (PWUD) compared to the general population, despite greater care needs as evidenced by higher comorbidity and more frequent use of emergency department care. We investigated which socio-structural factors were related to primary care engagement among PWUD.

Approach: The Participatory Research in Ottawa: Understanding Drugs cohort study meaningfully engaged and trained people with lived experience to recruit and survey marginalized PWUD. We linked this survey data to provincial-level administrative databases held at the Institute for Clinical Evaluative Sciences. We categorised engagement in primary care over the 2 years prior to survey completion (March-December 2013) as: not engaged (<3 outpatient visits to the same family physician) versus engaged in care (3+ visits to the same family physician). We used multivariable logistic regression to determine factors associated with engagement in primary care.

Results: Among 663 participants, characteristics include: mean age of 41.4 years, 75.6% male sex, 66.7% in the lowest two income quintiles, and 51.1% with 6+ comorbidities. 372 (56%) were engaged in primary care (mean of 15.97 visits in year prior to survey). Engagement was most strongly associated with the following factors: receiving drug benefits from either the Ontario Disability Support Program (adjusted odds ratio [AOR] 4.48; 95% confidence interval [95%CI] 2.64 to 7.60) or Ontario Works (AOR 3.41; 95%CI 1.96 to 5.91), having ever taken methadone (AOR 3.05; 95%CI 1.92 to 4.87), mental health comorbidity (AOR 2.93; 95%CI 1.97 to 4.36), engaging in sex work in the last 12 months (AOR 2.05; 95%CI 1.01 to 4.13), and having stable housing (AOR 1.98; 95%CI 1.30 to 3.01).

Conclusion: Almost half of PWUD are not engaged in primary care, representing missed opportunities to improve health. Engagement in primary care may reflect both an increased need for health care, and increased access through other health and social services. Alternative strategies, such as co-located models of care, may address this gap.

All Authors: Lisa Boucher, Bruyere Research Institute; Claire Kendall, University of Ottawa c/o Bruyère Research Institute; Mark Tyndall, BC Centre for Disease Control; Dave Pineau, PROUD Community Advisory Committee; Brad Renaud, PROUD Community Advisory Committee; A

Author: Dr. Mylaine Breton
Title: Learning from centralized waiting lists for patients without a primary care provider across seven Canadian provinces
Type of Abstract: Oral

Objectives: Seven Canadian provinces (BC, MB, NB, NS, ON, PEI, QC) have implemented centralized waiting lists (CWL) to increase attachment of patients to primary care providers. We compared the design and implementation of these CWLs to each other and to the scientific literature to foster cross-provincial learning.

Approach: We conducted a logic analysis of CWLs in each province. Logic analysis is a theory-based evaluation conducted in 3 steps – 1) build logic models describing each CWL (n=42 stakeholder interviews; grey literature); 2) develop a conceptual framework based on two realist reviews: one on waiting list management (n=21 articles) and one on financial incentives to increase attachment (n=9 articles, n=15 interviews); 3) compare the logic models to the conceptual framework during a face-to-face symposium with stakeholders from across Canada. All interviews were recorded, transcribed. We conducted thematic content analysis. Articles were reviewed for relevancy and synthesized.

Results: The design and implementation of centralized waiting lists varied considerably. For instance, four provinces had first-come-first serve waiting lists, while the other three prioritized attachment for complex patients. Challenges identified across all provinces included: fluctuations in supply of providers, finding providers for complex patients and building trust between the centralized waiting list and primary care providers. Steady funding for CWLs, using local primary care connectors to work with providers and implementing transition clinics to stabilize complex patients were identified as promising strategies. Our realist reviews allowed us to identify key considerations for the design and implementation of centralized waiting lists, namely regarding the centralized management of patients and the decision of whether to include financial incentives for providers to register new patients.

Conclusion: Conducting a logic analysis provided provinces with an opportunity to identify potential strategies to improve their CWLs, by learning from each. This study resulted in NS completing an assessment of how they would implement a CWLs, BC discussing how to provincially fund this intervention and NB maintaining the program.

All Authors: Mylaine Breton, Universite de Sherbrooke; Sabrina Wong, UBC; Sara Kreindler, University of Manitoba; Jalila Jbilou, Université de Moncton; Mélanie Ann Smithman, Université de Sherbrooke; Martin Sasseville, Centre de recherche - Hôpital Charles-Le Moyne; E

ID: 162
Author: Dr. Susan Bronskill
Title: Risk of fall-related injuries in residents of nursing homes receiving low-dose trazodone compared to benzodiazepines: a matched cohort study
Type of Abstract: Oral

Objectives: The prevalence of low-dose trazodone is rising over time in nursing homes, yet evidence is limited on the comparative safety of this medication relative to other psychotropic drugs, particularly benzodiazepines. We evaluated the risk of fall-related injuries among residents newly dispensed low-dose trazodone compared to those newly dispensed benzodiazepines.

Approach: A retrospective cohort study using linked health administrative data from Ontario, Canada examined older residents in nursing homes between April 1, 2010 and March 31, 2015. We considered 7,791 propensity-score-matched pairs who received a full clinical assessment and either new use of low-dose trazodone or a benzodiazepine within ±7 days. Matching was based on propensity score (± 0.2 standard deviations), age (± 1 year), sex, frailty status, and history of dementia. Primary outcome was hospitalization (emergency department visit or acute care admission) for a fall-related injury within 90 days of exposure. Sub-distribution hazard functions accounted for competing risk of death.

Results: The risk of fall-related injury among individuals newly dispensed low-dose trazodone was not statistically different than the risk among those newly exposed to benzodiazepines. The cumulative incidence of a fall-related injury in the 90 days following index was 5.74% for low-dose trazodone users and 6.03% for benzodiazepine users (between-group difference, -0.29 [95% confidence interval (CI) -1.02-0.44]; hazard ratio (HR) 0.94 [95% CI 0.83-1.08]). The results of our primary analysis were robust to censoring residents upon switching or discontinuing their initial exposure drugs (HR 0.96 [95% CI 0.82-1.14]) and to an analysis where new low-dose trazodone users were matched with new low-dose benzodiazepine users (HR 0.99 [95% CI 0.84-1.16]).

Conclusion: Low-dose trazodone was no safer than benzodiazepines in protecting against fall-related injuries. Given rising trends in the use of low-dose trazodone in nursing homes, increased vigilance related to off-label substitution for other psychotropic drug therapies is recommended and additional studies to assess the comparative effectiveness and risks are required.

All Authors: Susan Bronskill, ICES; Michael Campitelli, ICES; Andrea Iaboni, Toronto Rehabilitation Institute; Nathan Herrmann, Sunnybrook Health Sciences Centre; Jun Guan, Institute for Clinical Evaluative Sciences; Laura Maclagan, Institute for Clinical Evaluative S

ID: 272
Author: Dr. Susan Bronskill
Title: Survival among long-term care residents aged 75 years and older prescribed intensive-dose and moderate-dose statins: a propensity-score matched cohort study
Type of Abstract: Oral

Objectives: There is no direct evidence from randomized trials to support clinicians when making statin treatment decisions among residents of long-term care (LTC) facilities, including the selection of the appropriate statin dose. We examined the 1-year survival rates of older LTC residents prescribed intensive-dose statins compared with moderate-dose statins.

Approach: We conducted a retrospective cohort study of Ontario LTC residents aged >75 years between April 1, 2013 and March 31, 2014 using linked health administrative data. Residents who were prevalent statin users upon clinical assessment were included. Intensive-dose statin users were matched to moderate-dose users on the basis of propensity-score (± 0.2 standard deviations), age (± 1 year), sex, frailty status, and history of atherosclerotic-related hospitalization. The computed propensity-score included demographics, clinical diagnoses, measures of cognitive and functional status, past hospital and emergency department use, and concurrent drug therapies. The primary outcome was death within 1-year of assessment date.

Results: Propensity-score matching produced 4,634 pairs of intensive-dose and moderate-dose statin recipients; resident characteristics were well-balanced across the treatment groups. One-year survival for matched intensive-dose and moderate-dose statin users were 74.38% and 73.85%, respectively. The absolute difference in 1-year mortality between the treatment groups was not significant (0.53%; 95% Confidence Interval [CI] -1.26% to 2.32%). Cox proportional hazard modeling resulted in no significant association between receiving an intensive-dose and survival (Hazard Ratio [HR] 0.98, 95% CI 0.91-1.06, P-value 0.663). Hazard ratios within males and females, residents with and without a history of atherosclerotic-related hospitalization, and residents who were frail and pre-frail/not frail were all non-significant.

Conclusion: There was no significant difference in 1-year survival for LTC residents prescribed intensive-dose compared with moderate-dose statins. Reduced statin doses for aged LTC residents at heightened risk of statin-related adverse events may be warranted. Additional research using rigorous study designs are required to address continued uncertainty in this field.

All Authors: Susan Bronskill, ICES; Michael Campitelli, ICES; Colleen Maxwell, University of Waterloo; Laura Maclagan, ICES; Dennis Ko, Institute for Clinical Evaluative Sciences; Chaim Bell, Mount Sinai; Lianne Jeffs, St Michael's Hospital; Andrew Morris , Sinai Hea

ID: 218
Author: Dr. Catherine Brown
Title: How are physicians delivering palliative care? Describing the mix of generalist and specialist palliative care models in the last year of life
Type of Abstract: Oral

Objectives: Little information exists about the mixes of generalist and specialist palliative care patients receive in their last year. This study (1) operationalizes a theoretical coordinated palliative care model of physician-based services and (2) characterizes the physicians who deliver palliative care.

Approach: This is a population-based retrospective cohort study using linked healthcare administrative data. Participants included physicians providing any palliative care services to a decedent cohort in Ontario, Canada. The decedent cohort consisted of all adults (18+ years) who died in Ontario, Canada between April 2011 and March 2015 (n=361,951). We present the decedent population distribution among each model of physician-based palliative care services. We provide descriptive statistics to characterize physicians delivering palliative care including age, sex, rurality, year of graduation, country of medical school graduation, and specialty.

Results: We describe four major models of palliative care services: (1) 53.0% of decedents received no physician-based palliative care; (2) 21.2% received only generalist palliative care (i.e. physicians who are not palliative care specialists); (3) 14.7% received consultation palliative care (i.e. both generalist and specialist palliative care); and, (4) 11.1% received only specialist palliative care. Among physicians providing care (n=11,006), 95.3% were generalists and 4.7% specialists; 74.2% were trained as family physicians and the remainder from a broad spectrum of specialities including internal medicine (8.3%) and medical/radiation oncology (3.1%). Only 12.1% of palliative care generalists and 2.7% of palliative care specialists worked in a rural practice, where about 15% of the population resides.

Conclusion: We operationalized a physician-based palliative care model that can be used to understand how physicians deliver services at a population level. This model has already been useful to identify care gaps, such as rural areas. Future planned research will evaluate how models of care impacts patient outcomes and costs.

All Authors: Catherine Brown, University of Ottawa; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Amy Hsu, Bruyère Research Institute; Claire Kendall, University of Ottawa c/o Bruyère Research Institute; Denise Marshall, Departmen

ID: 285
Author: Dr. Marni Brownell
Title: No Strings Attached: The Impact of an Unconditional Prenatal Income Supplement on First Nations Birth and Early Childhood Outcomes
Type of Abstract: Oral

Objectives: In Manitoba, low-income pregnant women are eligible for the Healthy Baby Prenatal Benefit (HBPB), an unconditional income supplement provided during the second and third trimester of pregnancy. The objective of this study was to determine the impact of the HBPB on First Nations (FN) newborn and early childhood outcomes.

Approach: A research partnership between Nanaandawewigamig and the Manitoba Centre for Health Policy examined all FN women giving birth 2003-2010 (N=28,357). The majority (61.8%) were FN women living off reserve. To develop comparable groups of FN women receiving and not receiving HBPB, we included FN women receiving income assistance during pregnancy (n=7074). Propensity score weighting adjusted for differences between treatment (received HBPB; n=5283) and comparison (no HBPB; n=1791) groups. Multi-variable regressions compared the groups on breastfeeding initiation, low birth weight, preterm birth, small- and large-for-gestational age, Apgar scores, complete immunizations at 1 and 2 years, and developmental vulnerability in kindergarten.

Results: Receipt of the HBPB was associated with reductions in low birth weight births (adjusted Relative Risk (aRR): 0.77; 95% CI: 0.63, 0.93) and preterm births (aRR: 0.78 (0.68, 0.90)), and increases in breastfeeding initiation (aRR: 1.05 (1.00, 1.09)) and large-for-gestational age births (aRR: 1.11 (1.01, 1.23)). HBPB receipt during pregnancy was also associated with increases in 1- and 2-year immunizations for FN children (aRR: 1.14 (1.09, 1.19), and aRR: 1.28 (1.19, 1.36), respectively). Reductions in the risk of being developmentally vulnerable in the language and cognitive domain in kindergarten were also found for FN children whose mothers had received the HBPB during pregnancy (aRR: 0.85 (0.74, 0.97).

Conclusion: A modest unconditional income supplement during pregnancy was associated with improved birth outcomes, increased immunization rates, and improved language and cognitive development at kindergarten for children born to low-income First Nations women.

All Authors: Marni Brownell, Manitoba Centre for Health Policy; Mariette Chartier, ; Nathan Nickel, University of Manitoba; Rhonda Campbell, First Nations Health and Social Secretariat of Manitoba; Jennifer Enns, ; Wanda Phillips-Beck, First Nations Health and Social

ID: 313
Author: Dr. Suman Budhwani
Title: The relationship between receipt of home care at the end of life, cost and place of death: A population-level retrospective cohort study
Type of Abstract: Oral

Objectives: The purpose of this study was to describe and understand the impact of home care services on place of death and total health care cost for all Ontario decedents in the last three months of life.

Approach: A retrospective cohort study of all decedents in Ontario who died between April 1, 2011, and March 31, 2015. Key variables were derived from linked Ontario health administrative databases, including place of death (acute vs. non-acute), receipt of home care services (type and intensity), and total health care cost. Regression analyses were conducted to determine the relationship between the receipt of home care services and the place of death as well as total health care cost.

Results: In the last three months of life, decedents who received end-of-life (OR = 0.248, p < 0.001) and other home care service packages (OR = 0.84, p < 0.001) were significantly less likely to die in an acute care setting than those who did not receive home care. Palliative visits by nurse practitioners demonstrated the largest effect on reducing the risk of acute care deaths (OR=0.948, p<0.001) and health care cost (OR= 0.982, p<0.001). Personal support services, receipt of an end-of-life home care package, having a neurological condition (e.g., dementia, mood and anxiety disorders), being male, of greater age, and a rural resident were significantly associated with the reduction of the total cost of care.

Conclusion: Decedents who received home care with end-of-life intent, particularly from a palliative care nurse practitioner, were significantly less likely to die in an acute care setting and had lower total health care cost. Next steps include understanding how intensity and timing of home care initiation can influence outcomes.

All Authors: Suman Budhwani, Women's College Hospital Institute for Health System Solutions and Virtual Care; Ashlinder Gill, IHPME, University of Toronto; Sarah Spruin, ICES UOttawa; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute;

ID: 267
Author: Mr. Richard Buote
Title: Exploring Opportunities to Optimize the Organization of Primary Healthcare Services for Individuals with Chronic Diseases Across Newfoundland & Labrador (NL)
Type of Abstract: Oral

Objectives: Across Canada, the prevalence and cost of chronic diseases is growing. In Newfoundland and Labrador (NL), the prevalence of chronic diseases is above the national average. This study aims to improve the understanding of primary healthcare organization, specifically with respect to chronic disease care, to inform healthcare system reform initiatives.

Approach: A cross-sectional survey of primary healthcare sites across NL (n=154) was conducted. Primary healthcare sites were identified by members of each respective regional health authority. An electronic survey was administered to site leads to determine programs and services offered. This included location of site, communities serviced, disease-specific chronic disease prevention programming, types of routine primary care, allied health prevention and promotion, chronic disease prevention and management services, and whether team-based care was offered. Mode of service delivery was identified (i.e., delivered by on-site staff, visiting healthcare provider, or telehealth) along with details of team-based care provided.

Results: Completed surveys were returned by 96% (n=148) of sites. Family physician services were available at 66% of sites and nurse practitioner services at 51%. Less than a third (32%) of sites offered 24/7 primary care services. If a site offered a healthcare service, most often it was through an on-site staff member (39-98%) followed by visiting healthcare professionals (2.0-63%), while few used telehealth (<15%). Of services typically offered by allied health providers, healthy eating (77%), tobacco cessation (74%), and blood pressure (67%) were most frequently available. Targeted prevention and management programming was most commonly available for diabetes (46%), autism (27%), and hypertension (25%). Use of team-based care was reported by 41% of sites, most often for diabetes (48%), mental health (24%), and primary care (18%).

Conclusion: There is considerable variety of primary healthcare services available across NL that have yet to be optimized. Access to 24/7 care and utilization of telehealth to deliver primary healthcare services is limited. Future research should examine how availability of these programs and services affects those with chronic disease in NL.

All Authors: Richard Buote, Memorial University of Newfoundland; Julia Lukewich, Memorial University; John Knight, Primary Healthcare Research Unit; Shabnam Asghari, Memorial University; Kris Aubrey-Bassler, Memorial University

Author: Dr. Paula Bush
Title: Content Validation of a Practice Guide for Organizational Participatory Research
Type of Abstract: Oral

Objectives: Conducting Organizational Participatory Research (OPR) can be a feasible means to develop and implement practice or policy changes in health organizations such as hospitals. But, researchers and organization stakeholders can be at a loss regarding how to conduct OPR. We sought to develop and content validate an OPR practice guide.

Approach: Based on a systematic review of OPR processes and outcomes, we developed a practice guide of recommendations, and then improved it with a group of OPR experts (patients, managers, clinicians, researchers). We invited authors of the studies in the review to participate in a two-round e-Delphi. We sought consensus on the clarity, relevance, and representativeness of the recommedations, as well as the introductory text, the overall format. Respondents were asked to provide ratings on a Likert scale of 1-9 (not at all clear/relevant to extremely clear/relevant) and to suggest modifications, deletions or additions. An average response of 7/9 indicated consensus.

Results: Seventeen OPR researchers from 7 countries rated 39 recommendations, most with explanatory text. Round-one results indicated consensus for the relevance of 35 recommendations and for the clarity of 31. However, respondents provided over 1100 words of general comments for improving the guide, and 127 ± 71 words per recommendation. Based on comments and ratings, 12 recommendations were combined into 7 new ones and 5 were removed. The explanatory text of all recommendations was revised. Round-one results and the revised practice guide were submitted to respondents for round-two. Eleven responded and reached consensens for the relevance of all 27 recommendations. Regarding clarity, consensus was reached for 24 recommendations. These 3 recommendations were revised based on respondents' comments and submitted to three internal experts for feedback.

Conclusion: An international group of OPR experts agree that the 27 recommendations in this OPR practice guide are clear, relevant, and represent the necessary guidance for OPR stakeholders. This guide will help researchers, clinicians, managers and patients to mitigate the challenges of OPR and achieve their practice or policy change goals.

All Authors: Paula Bush, McGill University; Marie-Claude Tremblay, Université Laval

ID: 196
Author: Dr. Lisa Calder
Title: Using text analytics to explore physicians' questions about opioids: the CMPA experience
Type of Abstract: Oral

Objectives: The Canadian Medical Protective Association (CMPA) generates a large amount of textual data while assisting and advising Canadian physicians on medical-legal matters. Until recently, such text-based data have not been systematically analyzed. This study explores text analytics techniques to gain insight on challenges Canadian physicians face in prescribing opioids.

Approach: The CMPA annually receives over 20,000 physician requests through telephone calls for medical-legal advice. These advice call requests generate thousands of pages of text-based documentation. This study focuses on requests related to opioids prescription between 2013 and 2017. CMPA researchers used SPSS text mining software to extract themes and trends from such documentation. The team built preliminary categories that informed general themes from the initial sample of 3,483 advice calls. Themes were then iteratively refined and developed through subsequent consultations with CMPA nurse researchers, analysts and physicians. The researchers sampled and verified output from the software before finalizing results.

Results: The number of advice requests related to opioid prescription rose steadily from 519 in 2013 to 915 in 2017. This represents a 76% increase in the volume of calls on this topic in the recent 5 years, or an annual increase rate of 19%. The researchers were able to identify 6 relevant themes from the text-based data: existing patients with chronic pain requesting opioids, accepting new patients who are taking high-dose opioids, challenging patient behavior, concerns regarding opioids contracts, patient and family complaints, and reporting opioids use to authorities such as police, transportation authorities, child protective services and professional regulatory authorities.

Conclusion: Text analytics allowed the CMPA to identify themes and trends in data that researchers would have otherwise been unable to detect. By gaining insight from rich sources of textual data, we are able to respond to emerging trends, and be more effective in medical-legal education and patient safety messaging.

All Authors: Lisa Calder, The Canadian Medical Protective Association; Cathy Zhang, CMPA; Qian Yang, CMPA; Eileen Whyte, The Canadian Medical Protective Association

ID: 384
Author: Ms. Christina Catley
Title: Asthma hospitalizations decreasing among children and youth in Canada: gaps remain by income and education level
Type of Abstract: Oral

Objectives: This study draws on hospitalizations data and newly available linked data to address the questions of whether asthma hospitalizations in children and youth (age 0-19) have declined over the past decade, and to shed light on the trends and magnitude of inequalities by income, geographic location and education.

Approach: To examine asthma hospitalization rates overall, by geographic location, and neighbourhood income, we used the Hospital Morbidity Database housed at the Canadian Institute for Health Information (CIHI) for 2006-2015; Statistics Canada's Postal Code Conversion File (PCCF+) assigned neighbourhood income and urban and rural/remote status. We stratified asthma hospitalization rates by household education and individual-level income using Statistics Canada data that links the 2006 Census (long-form) and CIHI's Discharge Abstract Database for 2006-2009. Age-standardized rates were analysed by sex/age group at the national/provincial/territorial levels. Inequalities were measured on the absolute and relative scales, using rate differences and rate ratios, respectively.

Results: Asthma continues to be a leading cause of hospitalization among children and youth, with over 6,000 hospitalizations in 2015-2016. Over the past decade, however, these hospitalizations have declined by 50%. In spite of this improvement, rates of hospitalization remain 1.5 times higher among children and youth living in lower income neighbourhoods compared to those living in higher income neighbourhoods. These income-related inequalities are present across different age groups and for boys and girls. Large inequalities in asthma hospitalizations were observed by household education, with children and youth living in households with less than high school completion 2.3 times more likely to have been admitted to hospital for asthma than those living in households with a university degree at the masters or doctorate level.

Conclusion: Results suggest opportunities to improve asthma management for children and youth, particularly within lower education/income households. Promising interventions include patient/parent self-management plans and school/community-based programs. This work illustrates the value of data linkage to measure inequalities across socio-demographic variables; future work could evaluate the effects of interventions on vulnerable sub-populations.

All Authors: Christina Catley, Canadian Institute for Health Informaton; Sara Allin, Canadian Institute for Health Information ; Erin Pichora, Canadian Institute for Health Information; Geoffrey Hynes, Canadian Institute for Health Information; Stephanie Ko, Canadian

ID: 156
Author: Dr. Stephanie Chamberlain
Title: Going it alone: Quality of care and quality of life of unbefriended residents in long term care
Type of Abstract: Oral

Objectives: Residents are under public guardianship are 'unbefriended' if they lack decision-making capacity and a family member or a friend to act as their legal representative. Our objectives were to identify the characteristics of unbefriended residents, their unmet care needs, and implications for quality of care and quality of life.

Approach: We conducted semi-structured interviews with thirty nine long term care staff and with three public guardian representatives. We purposively sampled a variety of care providers (regulated, unregulated, allied, managers) in order to examine experiences working with residents who have a public guardian. Long term care staff were recruited from seven facilities. These facilities represented three regional health zones and a mix of owner-operator models. We interviewed public guardian representatives who worked in two different health zones. We developed the interview guides using the domains of Guberman and Lavoie's framework of social exclusion and analyzed the interviews using content analysis.

Results: The majority of the participants were female (93%) and 40+ years of age (54%). Long-term care staff had worked seven years in their current position compared to public guardian representatives who had worked three years in their current position. Characteristics of unbefriended residents include mental health issues, substance abuse, previous homelessness, never marrying, and childlessness. Unbefriended residents do not have anyone to assist in multiple areas, e.g., one-on-one social interaction, accompanying them to outside appointments, purchasing personal items. LTC staff report significant issues with their care at the end of life. These residents often experience more aggressive medical intervention vs. palliative approaches, and experience more inappropriate practices such as repeated transfers to hospital.

Conclusion: Our findings demonstrate alarming issues in the quality of life, quality of care, and quality of end of life for unbefriended residents. Unbefriended residents have limited social support and in some cases issues with accessing even basic personal care items. We discuss implications for policy and practice.

All Authors: Stephanie Chamberlain, University of Alberta; Carole Estabrooks, ; Wendy Duggleby, University of Alberta

ID: 529
Author: Dr. Dan Chateau
Title: Health care and social service use by individuals with mental health diagnoses at the transition from pediatric to adult care
Type of Abstract: Oral

Objectives: Many services provided by, or funded by, government agencies specifically target pediatric populations (<18). Access to these services is typically cut off once a person is considered an adult. This study will examine change in care associated with the transition from pediatric to adult care for mental health conditions.

Approach: Using the Manitoba Population Research Data Repository housed at MCHP, we identified individuals receiving mental health services at their 18th birthday through medical services records, hospital discharge abstracts, or receipt of services at the Manitoba Adolescent Treatment Centre. Physician visits, specialist visits,hospitalizations, prescription drug use, income assistance, social housing, and involvement with the criminal justice system were examined in the two years before and two years after the transition and compared to individuals without a mental health diagnosis. Mortality after the transition was also measured. in addition we also examined the cause of visits and hospitalizations.

Results: 13,518 individuals were identified in our mental health cohort, totaling 14693   person years at risk prior to the transition and 14202 person years at risk after the transition. Overall physician visit rates were higher for those with a diagnosis (3.73 vs 1.75/person-year), but did not change in the post transition period (3.77). Access to psychiatrists, however, declined significantly (83.9/100PY to 46.8). Importantly, psychotropic drug dispensations saw only a modest, but significant decline (4.63/PY to 4.40). However, a significant increase in opioid and anxiolytic dispensations accompanied a significant decrease in antidepressants. Rates of accusations in the criminal justice system declined over the transition from 31.3/100PY to 25.6, while this number increased for those without a mental health diagnosis.

Conclusion: The transition from pediatric to adult care can have a significant impact on health care service use and provision. This study assessed this at a population level and while overall levels of physician visits remained stable, a reduction in specialist care and increase in opioid use was observed.

All Authors: Dan Chateau, Manitoba Centre for Health Policy, University of Manitoba; Heather Prior, Manitoba Centre for Health Policy; Dale Stevenson, Manitoba Centre for Health Policy, University of Manitoba; Laurence Katz, University of Manitoba; Nie Yao, Manitoba C

ID: 249
Author: Mr. Edward Chau
Title: Effect of continuity of care on the risk of developing multimorbidity in Ontario, Canada between 2001 - 2015: A retrospective cohort study
Type of Abstract: Oral

Objectives: Continuity of care has emerged as a potentially modifiable determinant of the health of patients with multimorbidity, but its association with the onset of chronic conditions is not well understood. The objective of this study was to investigate whether relationship continuity of care affects the risk of developing multimorbidity.

Approach: We assembled a cohort of 166,665 patients aged 18 – 105 years with at least one chronic condition in Ontario, Canada using health administrative databases. Continuity of care was specified as the time-dependent exposure. We calculated continuity with the Bice-Boxerman Index, which included all physicians encountered in inpatient and outpatient (office, home care, long-term care, and emergency department) settings. Patients were followed between 2001 – 2015 for the occurrence of a second, third, and fourth chronic condition. We estimated the risk that patients developed each consecutive chronic condition using a cause-specific hazards regression modelling approach.

Results: Approximately 53% of patients were aged less than 45 years and 52% of the cohort were females. The median follow-up time in days until the occurrence of a second chronic condition was 1738 (IQR: 560, 4353). Estimates revealed that patients with one condition and high continuity had an 8% lower risk of multimorbidity (cause-specific hazard ratio: 0.92; 95% CI: 0.90,0.93) after adjusting for age, sex, income, place of residence, primary care enrolment, and the annual number of physician visits. Among patients with two conditions, individuals with high continuity had a reduced risk of developing a third condition (0.90; 0.88,0.91). Patients with three conditions and high continuity had a reduced risk of developing a fourth condition (0.89; 0.87,0.91).

Conclusion: These findings suggest that continuity of care protects patients from accumulating chronic conditions over time. This represents an encouraging healthcare strategy to consider as a means of mitigating the burden of multimorbidity. Future studies should seek to explain the mechanisms through which continuity prevent chronic conditions from occurring.

All Authors: Edward Chau, Institute of Health Policy, Management, and Evaluation; Luke Mondor, ICES; Laura Rosella, Dalla Lana School of Public Health, University of Toronto; Walter Wodchis, University of Toronto

ID: 340
Author: Dr. Mei Chen
Title: Generating Self-care Information through Machine Learning for Supporting Patient Self-management of Chronic Disease
Type of Abstract: Oral

Objectives: The objectives of this project are twofold: (a) to automatically generate high-quality, up-to date, and practical self-care information from the Internet to support patient education, medical decision making, and self-management of chronic diseases throughout the patient journey; (b) to help healthcare providers achieve better treatment outcomes while reducing costs.

Approach: We use rule-based Natural Language Processing (NLP) and data mining methods in conjunction with a world model and cognitive frameworks to automatically analyze, rank, select, and extract self-care information from the best health-related websites. The world model represents things existing in the medical world (diseases, symptoms, drugs, and medical procedures, dietary plans, etc.) whereas cognitive frameworks specify possible patient interactions with this world (e.g., undergoing a medical procedure, preforming needed self-care tasks before, during, and after the procedure). Our system gives priorities to the types of information that are essential for understanding the illnesses, medical interventions, and needed self-care.

Results: Our system scanned and analyzed 9.2 million webpages from 12,000 quality medical websites and generated a large database that contains useful information on 25,000 diseases, 4,500 symptoms, 1,500 Injuries and accidents, 9,500 medical procedures, 8,000 drugs, and many other health related objects. The system was able to generate knowledge maps and exploratory interfaces on the majority of these medical entities, providing a wealth of information to help users acquire knowledge and skills necessary for dealing with their illnesses.

Using big data and multiple selection algorithms and metrics, our system also generated machine learning insights into the meaningful relationships between different health-related entities, e.g., for each disease, our system extracted related symptoms, tests, treatment modalities, drugs, medical procedures, potential complications, and suitable dietary plans.

Conclusion: Our NLP and data mining methods enables us to identify, prioritize, extract, organize, and display useful self-care related information; Patients can explore the complex hidden relations that are essential for them to understand, decide, and manage their health conditions, helping them overcome certain challenges they face in their self-care.

All Authors: Mei Chen, Seenso Institute for Public Health; Michel Decary, Seenso Institute for Public Health

ID: 465
Author: Dr. Chiachen Cheng
Title: Conducting Fidelity to Standards Assessment: implications for program decision-makers
Type of Abstract: Oral

Objectives: Early Psychosis Intervention (EPI) is an evidence-informed model of care. In 2011, Ontario Government released Standards for EPI programs. EPION (Early Psychosis Intervention Ontario Network) piloted an initiative to measure fidelity (adherence to Standards) in programs. This presentation will discuss the outcomes implications for EPI program decision-makers.

Approach: The pilot initiative involved 9 EPI program sites. The in-person fidelity assessments were conducted over two-days by a pair of assessors (an EPI clinician and implementation specialist). The fidelity assessments were conducted using the evidence-based 31-item First-Episode Psychosis Services Fidelity Scale (FEPS-FS). Consensus was used to determine ratings on a scale between one to five. Data sources for the assessment included client and family feedback, chart review, team discussion, program policy review and staff interviews. Reports included the final ratings and suggestions for quality improvement per item. This presentation will focus on the implications for EPI programs.

Results: The aggregate fidelity assessment results included areas of higher/lower fidelity across the sites, patterns according to program type (e.g., large number of staff versus small number of staff) and common challenges. Generally, sites had higher fidelity in multi-disciplinary approach to case management and medication treatment. Lower fidelity areas were in manualized care processes, formalized and consistently delivered evidence-based therapies (e.g., cognitive behavioural therapy), and specific policies that are documented for systematic service delivery. Smaller programs had more challenges delivering the full complement of EPI model, especially in areas that required more resources. There was also variability in the degree of outreach into community across sites. Few programs have dedicated resources to implement program evaluation or assessment of fidelity to EPI Standards.

Conclusion: While this study was a pilot initiative involving only 9 out of 50 EPI programs in the province, we learned about how the sector can be supported to make service improvements to achieve Standards. We will discuss the lessons about quality improvement and quality assurance in mental health service delivery.

All Authors: Chiachen Cheng, Northern Ontario School of Medicine, Centre for Applied Health Research - St. Joseph's Care Group; Gordon Langill, CMHA Haliburton Kawartha Pine Ridge; Avra Selick, Centre for Addiction and Mental Health; Donald Addington, University of Ca

ID: 293
Author: Grace Cheung
Title: Patient Engagement in Primary Care: Results from the Commonwealth Fund's 2017 Survey of Older Adults in 11 Countries
Type of Abstract: Oral

Objectives: There is increasing demand to provide efficient and high quality care globally as senior populations continue to grow. This analysis examines how Canada and its provinces compare internationally for patient engagement in different aspects of primary care for seniors: disease prevention, chronic condition management, and end-of-life care planning.

Approach: The Commonwealth Fund's 2017 International Health Policy Survey of Older Adults (age 65+) reflects self-reported experiences from random samples in Canada and 10 of its peer countries. In Canada, 4,549 respondents were interviewed by phone in spring 2017. The survey explored a variety of topics: health status, access to care, primary care, coordination, specialist care, hospital care, home care and end-of-life planning. The data were weighted by age, gender, and province to reflect Canada's population distribution. Significance tests compared patient engagement related questions for provinces and Canada against the average of all 11 countries.

Results: More Canadian seniors felt engaged by their doctor, who spent enough time with them, encouraged them to ask questions, explained things in an easy way, and involved them in treatment decisions. Results were mixed for disease prevention: more Canadian seniors had healthy eating and exercise discussions, but similar to the international average for alcohol use and stress discussions. For Canadian seniors with chronic conditions, more have discussed treatment goals and plans, and were very confident in self-management; less Canadian seniors had health care providers that they could easily contact between doctor visits. More Canadian seniors have had discussions and had written plans for end-of-life care. There were provincial variations in all patient engagement activities.

Conclusion: This study shows that more Canadian seniors are engaged in their care than those in other countries. However, there is room for improvement, particularly for disease prevention and chronic condition management.

All Authors: Grace Cheung, ; Patricia Sidhom, Canadian Institute for Health Information; Katerina Gapanenko,

ID: 598
Author: Mrs. Alexandra Constant
Title: Solving preventable hospital readmissions with an appropriate risk prediction tool
Type of Abstract: Oral

Objectives: Predictive models that identify patients at risk of readmission has become accessible for hospitals needing to properly trigger the delivery of resource-intensive discharge and care transition interventions. A public-private collaborative developed and validated a readmission risk prediction model that identify a patient's likelihood of being readmitted within 45 days.

Approach: Adult inpatients discharged from three healthcare organizations in Quebec between April 1, 2014 and March 31, 2016 were identified retrospectively. Univariate comparisons between patients that were readmitted within 45 days versus those not readmitted were analyzed using Student's t-test for continuous data and χ^2 test for categorical data. We have built the predictive model using both traditional statistical methods and machine learning methods to predict readmission, and compared model discrimination and predictive range of the various techniques so as to build a model that delivers the highest level of accuracy while maintaining the best fit to the data.

Results: Of the discharge patients included in the three-year study (n=97,600), 11% experienced an unplanned readmission to hospital within 45 days after discharge. Several variables were identified that predicted readmission, such as the patient's demographic and social characteristics, condition of comorbidities, previous service utilization, medications, laboratory tests and discharge disposition. The readmission risk prediction model demonstrated modest discrimination ability, the Matthews correlation coefficient and the Brier's score showed reasonable predictive performance during derivation and internal validation.

Conclusion: Rigorously constructed, a readmission risk prediction model is a powerful tool for hospitals to identify patients most likely to benefit from discharge and transitional care interventions and ensuring the return on investment of these interventions.

All Authors: Alexandra Constant, Logibec

ID: 237
Author: Mr. Damien Contandriopoulos
Title: We could do better: Results from a ten-year longitudinal analysis of Quebec's physician compensation models
Type of Abstract: Oral

Objectives: In 2014 Quebec's Commissaire à la santé et au bien-être funded a call for proposals to understand how Quebec's physician compensation models shape clinical practice, what their impacts are on health-care system performance, and how they interact with other determinants of performance.

Approach: The nature of the objectives, combined with challenges related to practical data availability, prompted us to use a three-pronged mix-method approach. First, we reviewed changes in physician payment schedules over ten years (January 2006 to December 2015) and analyzed the implicit causal relation between incentives and behaviour change. Second, we longitudinally analyzed 47 payment, capacity, and production indicators over the same period. Third, we conducted 33 in-depth interviews with practising physicians and experts focused on the influence of compensation models on behaviour and performance. Finally, results from each component were combined in a systemic assessment of Quebec's physician compensation model.

Results: Fee-for-service (FFS) was the dominant component of the compensation models (70% and 82% of gross income for GPs and specialists, respectively). In our study period GPs experienced significant changes in the compensation rules, with tagged incentives constituting a larger portion of the mix. There were no significant changes for most specialties. However, some specialties with below-average payments (psychiatry, pediatrics, etc.) experienced a move toward more FSS as part of a reallocation process. Global payments to physicians grew 60% in constant dollars between 2006 and 2015. Most of the increase went to specialists. Production indicators all converge to show either stagnation or decline in per-physician and per-capita care. Many undesirable side effects of the compensation models studied were documented at both the individual and system levels.

Conclusion: Despite massive investments in physicians' compensation, the volume and accessibility of care did not improve between 2006 and 2015. This situation is explained in part by suboptimal characteristics of Quebec's physician compensation models. The study provides six recommendations to improve the fit between physician compensation models and system performance.

All Authors: Damien Contandriopoulos, University of Victoria; Astrid Brousselle, University of Victoria; Mylaine Breton, Universite de Sherbrooke; Arnaud Duhoux, Université de Montréal; Geneviève Champagne, Université de Sherbrooke; Catherine Hudon, Université de Sher

ID: 386
Author: Ms. Alicia Costante
Title: Access to Palliative Care in Canada
Type of Abstract: Oral

Objectives: Palliative care is a priority across Canada due to population aging. Understanding access to high quality palliative care is particularly relevant given new legislation on medical assistance in dying. This study examines palliative care policies and pan-Canadian use of palliative services across care sectors, and identifies service and data gaps.

Approach: An environmental scan of palliative care policies was conducted and results were sent to provincial and territorial ministries for validation. Information was collected on strategies/frameworks, dedicated routine funding, and eligibility criteria for palliative care. Service use was examined using administrative data from acute care, ambulatory and community care, physician billings and public drug programs. Service use in the last year of life was examined in order to better understand palliative care outcomes and appropriateness of care. Results from the policy scan and service use analyses were considered in the identification of service and data gaps.

Results: There is considerable variation across the country in terms of palliative care policies, and how service delivery is organized and funded. Analysis of administrative data found that most decedents did not have a record of palliative care service in the last year of life. Home care and acute care were the most common settings where decedents had a record of palliative care. Among acute-care deaths in 2016-17, 25% received palliative care during their final hospitalization. Palliative care in the community was provided earlier and was associated with fewer ED visits and ICU stays at the end of life. Sources of community-based palliative care included home care, physician visits, and palliative drug plans. Other non-hospital options for palliative care included long-term care and residential hospice care.

Conclusion: This analysis shows there are opportunities to improve the outcomes of end-of-life patients by integrating community palliative care earlier in the patient care pathway. It also highlights gaps in understanding the full scope of palliative services available to Canadians and how they differ across the country.

All Authors: Alicia Costante, Canadian Institute for Health Information; Christina Lawand, ; Clare Cheng, Canadian Institute for Health Information

ID: 189
Author: Ms. Élizabeth Côté-Boileau
Title: How to build transformative capacities among organizational actors through public healthcare reforms: a realistic evaluation
Type of Abstract: Oral

Objectives: We explored how organizational actors mobilize transformative capacities to expand the academic mission across the care continuum within an Integrated Academic Health and Social Services Centre (IAHSSC) in Quebec, in the context of the latest healthcare reform in Quebec (2015).

Approach: We conducted a realistic evaluation to elucidate the causal chain between context, mechanism and outcome (C-M-O) involved in the development of transformative capacities through the expansion of the academic mission. We used the Model of Forms of Institutional Work in the Enactment of Policy Reform as our candidate theory (Cloutier et al., 2015). We conducted a qualitative embedded single-case study in an IAHSSC in Quebec. Data were collected through documentation and semi-structured interviews with key informants (N=27). We first categorized our empirical data as either context, mechanism or outcome, and secondly as structural, conceptual, operational or relational work.

Results: By means of our "candidate program theory" of the development of transformative capacities through the expansion of the academic mission across the care continuum in the IAHSSC, four mid-range C-M-O configurations emerged. First, in a context of centrally managed policy reform, actors seek to both integrate and differenciate their new organizational identities to generate structural capacities. Secondly, the alignment of conceptual capacities across organizational actors at different levels of care develops from frequent and inclusive local interactions. Thirdly, in a context of high performance pressure, a lack of perceived value and feasible guidelines jeopardize operational capacities from senior to front-line leadership. Finaly, the mobilization of relational capacities is central to accelerates the potential for expanding the academic mission across the care continuum.

Conclusion: This study support that the development of transformative capacities among organizational actors in a reform context is a relational process. While many health systems are moving torwards integrated structures, we suggest to align these efforts with interactive and inclusive mechanisms within and across actors from primary care to policy levels.

All Authors: Élizabeth Côté-Boileau, University of Sherbrooke; Jean-Louis Denis, University of Montreal; Marie-Andrée Paquette, Centre de prévention et de réadaptation de l'incapacité au travail (CAPRIT)

ID: 578
Author: Dr. Sonya Cressman
Title: Patient reported quality of life and personal financial impact following treatment for rare blood cancers: A longitudinal study
Type of Abstract: Oral

Objectives: This study objective was to use the infrastructure of a multi-centered clinical study to assess quality of life (QoL) and patient-reported financial impact following treatment of newly diagnosed acute myeloid leukemias (AML) and myelodysplastic syndromes (MDS); two rare and serious forms of blood cancer.

Approach: We administered the EQ-5D-3L, FACT-LEU and societal cost questionnaires to participants in the observational clinical study (NCT01685619) at: baseline, 3, 6, 12, 18 and 24 months. The key exploratory endpoints were baseline-to-12 and 24 month changes in QoL and measurement of societal costs including: changes in income, employment, caregiver effects and out-of-pocket expenses. The EQ-5D-3L was scored according to the preference weights of the Canadian population and univariate and multivariate regression models were used to identify socio-demographic and clinical risk factors for death or QoL gained following treatment. Risk of increased societal costs was confirmed with Mann-Whitney tests.

Results: A total of 138 (94% of eligible) participants completed at least one quality of life or societal cost questionnaire. The median overall survival was reached over the term of the study (463 days, 95% CI: 353-724). Over the first year of treatment, QoL scores increased significantly; the mean baseline to 12 month QoL improved by 0.12 (95% CI: 0.03-0.21) according to the EQ-5D-3L index and 14.77 (95% CI: 3.44-26.10) for the FACT-LEU. The 12-to 24 month changes in QoL for the study survivors (n=52, 37 % of enrolled) appear to stabilize. Having AML was associated with greater QoL gains from treatment, compared with MDS; however, out of pocket expenses, lost productivity and caregiver constraints were significantly higher for patients with AML.

Conclusion: AML patients report significantly higher QoL gained from treatment yet their personal financial outcomes are worse than patients with MDS.

All Authors: Sonya Cressman, BC Cancer Agency; Stephen Couban, QEII Health Sciences Centre ; Raewyn Broady, University of British Columbia and The Leukemia and Bone Marrow Transplant Program; Emily Mcpherson, Mathematica; Jessica Weng, BC Cancer Research Centre ; Stu

ID: 427
Author: Dr. Simone Dahrouge
Title: The feasibility of integrating a non-clinical patient navigation in primary care practices to enhance Access to Resources in the Community (ARC) – the ARC study
Type of Abstract: Oral

Objectives: No standard process exists to facilitate "referrals" to health enabling community resources (CR) by primary care providers (PCP), or to support their patients to access these resources. This is especially problematic for individuals with social complexities. We studied the feasibility of a multipronged approach to improve equitable access to CRs.

Approach: We recruited four community practices in Ottawa (56 PCPs). In each, we promoted the availability and benefit of CRs (e.g. physical activity, caregiver support, falls prevention, self-management) to PCPs and patients, and provided the services of a patient navigator to support patients in overcoming access barriers and using the recommended CRs. We introduced standardized PCP referral and navigator feedback forms to support PCP-navigator information continuity. Data collection methods included surveys and interviews with PCPs and patients, a rapid cycle evaluation (RCE) of study progress completed by PCPs, and navigator and coordinator logs of study activities and encounters with participants.

Results: Preliminary results: Acceptability: PCPs were satisfied (80% agreement) with the implementation of study activities; 77% of patients rated the quality of navigation services as "good" or "excellent"; Demand: 106 patients were referred, 63 were enrolled. On average, each patient had 6 encounters with the navigator; Implementation: High fidelity. 74% of first encounters with the navigator were in-person. Navigator activities to support patients (%) included emotional support (82%), communicating with CR staff (62%), researching appropriate CRs (55%), and administrative assistance (24%); Adaptation: Minor changes to the referral form to reflect practice priorities. Referral process and navigator office hours negotiated with each practice; Integration: The referral form was integrated in EMR in all practices; Efficacy: 56% of patients reached a CR. Final results will be presented.

Conclusion: The integration of a non-clinical patient navigator in primary care practices is feasible on many levels. A randomized controlled trial of this model is starting in March 2018. This model of navigation offers many advantages and may help mitigate inequities for individuals with social complexities.

All Authors: Simone Dahrouge, Bruyère Research Institute; François Chiocchio, Professor, Organisational Behaviour and Human Resource Management; Alain Gauthier, ; Manon Lemonde, University of Ontario Institute of Technology; Denis Prud'homme, Institut de recherche d

ID: 56
Author: Dr. Claire de Oliveira
Title: Determining preventable acute care spending among high-cost patients
Type of Abstract: Oral

Objectives: A small proportion of patients accounts for a disproportionately large share of health care costs. Thus, focusing on high-cost patients is likely to yield the most impact on health care system costs. The objective of this analysis was to determine preventable acute care spending among high-cost patients in Ontario, Canada.

Approach: We used a population-based sample of high-cost patients obtained from linked administrative health care data housed at the Institute for Clinical Evaluative Sciences in Toronto, Ontario. High-cost patients were defined as those in the 90th percentile of the cost distribution; all other patients were defined as non-high-cost patients. We examined patients in 2013 and followed them until 2015 . Persistent high-cost patients were defined as those in the high-cost category for all three years of the analysis . Preventable acute care (emergency department visits and hospitalisations) was defined using validated algorithms. We estimated costs of preventable and non-preventable acute care

Results: Among high-cost patients, roughly 40% of emergency department visits costs were considered preventable. Similar results were found for non-high-cost patients. For hospitalisations, roughly 10% of costs were considered preventable among high-cost patients, while close to be 20% of costs were considerable preventable among non-high-cost patients. The most common reasons for preventable hospitalisations among high-cost patients were congestive heart failure, bacterial pneumonia and COPD, while the most common reasons for non-preventable hospitalisations were for orthopaedic conditions, ischemic heart disease and cancer. Slightly higher proportions of costs for preventable acute care were found for persistent high-cost patients (43% and 14% for emergency department visits and hospitalisations, respectively).

Conclusion: Only a small proportion of costs were related to preventable acute care. Strategies to lower costs through better outpatient care may be limited among high-cost patients. Additional savings may be obtained through prevention and/or the delivery of more efficient inpatient care.

All Authors: Claire de Oliveira, CAMH; Joyce Cheng, CAMH; Kelvin Chan , Canadian Centre for Applied Research in Cancer Control; Craig Earle, CPAC; Murray Krahn, THETA Collaborative; Nicole Mittmann, Cancer Care Ontario

ID: 194
Autheur: Mr. Simon Deslauriers
Titre: Un modèle de collaboration interprofessionnelle entre physiothérapeutes et médecins de famille afin d'améliorer la prise en charge des personnes atteintes de troubles musculosquelettiques en première ligne
Type d'abstrait: Oral

Objectifs: L'objectif de la présentation est de décrire un modèle de collaboration novateur entre les physiothérapeutes et les médecins et résidents en médecine familiale ainsi que de documenter les activités de collaboration interprofessionnelle observées dans ce modèle.

Approche: Les données couvrant la période de 2009 à 2016 ont été collectées dans un Groupe de médecine de famille universitaire (GMF-U) de la région de Québec. Des analyses descriptives ont été réalisées afin de documenter les activités de collaboration et d'éducation interprofessionnelles impliquant les physiothérapeutes et les médecins et résidents. Des analyses de régressions linéaires ont été menées afin d'examiner l'évolution du nombre d'activités interprofessionnelles en fonction du temps.

Résultats: Nos résultats indiquent qu'une moyenne de 220 ± 44 références en physiothérapie étaient effectuées annuellement. Les trois motifs de références les plus fréquents étaient des troubles musculosquelettiques aux membres inférieurs (19%), les lombalgies et sciatalgies (18%) et les conditions pédiatriques (18%). De plus, les physiothérapeutes étaient impliqués dans 307 ± 73 discussions informelles par année avec les médecins et résidents. Depuis 2009, les physiothérapeutes ont collaboré à 62 séances d'enseignement destinées aux résidents en médecine familiale. Les résultats suggèrent une tendance à l'augmentation des activités de collaboration au fil des ans, mais aucune différence significative n'a été détectée ($p > 0.05$). L'implication du physiothérapeute à des comités interprofessionnels permet aussi de promouvoir le rôle de la physiothérapie en première ligne au sein de l'organisation.

Conclusion: Le modèle d'organisation des soins dans lequel des physiothérapeutes sont intégrés à un GMF-U favorise une variété d'activités de collaboration et d'éducation interprofessionnelle. Un tel modèle novateur offre le potentiel d'améliorer la prise en charge des personnes qui souffrent de troubles musculosquelettiques en première ligne.

Autheurs: Simon Deslauriers, Université Laval; Marie-Eve Toutant, Université Laval; CIUSSS Capitale-Nationale

ID: 269
Author: Ms. Naomi Diestelkamp
Title: Defining frailty in acute care: Development of a frailty measure to inform quality of care
Type of Abstract: Oral

Objectives: Identifying frail individuals is of increasing interest in the healthcare system. Frail individuals are more likely to have increased care needs, hospitalizations, and poorer outcomes. A frailty measure for acute care is proposed for tailored and improved patient care, better allocation of resources, and improved assessment of health system performance.

Approach: Using the Rockwood Frailty Index as a starting point and taking a pan-Canadian lens, data elements from acute care administrative databases were mapped to key variables in the index using ICD-10 codes and proxy measures where applicable. An expert advisory committee composed of geriatricians, researchers, health system administrators and frailty experts were consulted to refine the multi-dimensional nature of frailty. The developed measure is expected to represent a continuum of frailty and includes individuals of all ages impacted by this phenomenon.

Results: This presentation focuses on the development of the methodology used to calculate a frailty measure for application in acute care settings in Canada. The rationale for choice of variables will be discussed, including the mapping of the existing Frailty Index to acute care administrative databases. Strengths and weaknesses of various approaches will be noted. Furthermore, the process that will be used to validate the measure using interRAI databases and the Canadian Community Health Survey will be highlighted. Variations identified in frailty scores and the proportion of frail individuals, at the administrative health region and provincial levels, will be showcased along with the key drivers of frailty scores identified during measure development. Challenges and opportunities for further refinement will be discussed.

Conclusion: Developing and refining the methodology for this pan-Canadian frailty measure is an important step towards ensuring a better understanding of the volume, and degree of frailty, of patients in acute care. Future use of this measure to adjust models of other performance indicators has been identified as an added benefit.

All Authors: Naomi Diestelkamp, CIHI; Joseph Amuah, Canadian Institute for Health Information; Jeanie Lacroix, CIHI; Tareq Ahmed, Canadian Institute for Health Information

ID: 330
Autheur: Dr. Maman Joyce Dogba
Titre: Co-design d'une infrastructure de soutien et de coordination des partenariats de recherche avec les patients-citoyens
Type d'abstrait: Oral

Objectifs: Identifier ce qui se fait dans la grande région de Québec en matière de partenariats de recherche avec les patients et les citoyens et déterminer les conditions optimales pour mettre en place une infrastructure de soutien et de coordination des partenariats de recherche avec les patients et les citoyens.

Approche: Nous avons adopté une approche de recherche-action pour ce projet dont cinq des huit étapes ont été réalisées, à savoir : 1) Sondage en ligne des chercheurs, cliniciens et décideurs afin d'identifier leurs pratiques d'implication des patients et de citoyens dans la recherche ; 3) Synthèse rapide de la littérature sur les modèles organisationnels d'infrastructures d'implication de patients et de citoyens dans la recherche; 4) Participation des membres de l'équipe de recherche à des conférences; 5) Consultation des patients-citoyens; 6) Recrutement et formation des « représentants » des parties prenantes pour le co-design; 7) Atelier-pilote de co-design.

Résultats: Sur les 223 répondants au sondage (Taux de réponse = 223), 92 (43 %) ont déjà impliqué des patients/citoyens dans la recherche alors que 121 (54%) ne l'ont jamais fait. L'implication se situe davantage au niveau du recrutement des participants à l'étude (N =44) et de l'identification des priorités de recherche (N =43) qu'au niveau de l'évaluation du protocole de recherche (N = 22) ou de la conception du devis de recherche (N =19).

Quatre grandes moyens d'implication des patients et des citoyens dans la recherche :   l'inscription à un registre; le jumelage avec des chercheurs; le réseautage, la consultation et la référence. Les 27 participants à l'atelier ont proposé un format flexible et mixte de partenariats de recherche.

Conclusion: Il existe des formats multiples, adaptables et flexibles pour faciliter les partenariats de recherche avec les patients et les citoyens. Toutefois, malgré le consensus sur le bien-fondé de ces partenariats, les chercheurs qui en font une pratique usuelle sont peu nombreux.

Autheurs: Maman Joyce Dogba, Université Laval Département de médecine familiale et de médecine d'urgence; France Légaré, Laval University; Marie-Pierre Gagnon, Faculté des sciences infirmières; Jean Légaré, c/o Université Laval, Faculty of Medicine; Priscille-Nice

ID: 44
Author: Ms. Nicole Doria
Title: Effectiveness of current curricula in adequately preparing Dalhousie University health professional students to work with Indigenous peoples
Type of Abstract: Oral

Objectives: This study sought to understand the perspectives of faculty who teach in the medicine, dentistry, nursing, pharmacy, and social work programs at Dalhousie University with respect to the current Indigenous health content in curricula.

Approach: One-on-one semi-structured interviews were conducted in 2016-17 with 32 faculty/lecturers across the aforementioned programs. Thematic analysis revealed a consensus that the current curricula were insufficient in providing a foundation of knowledge for students to work safely with Indigenous peoples in healthcare settings.

Results: Four main themes emerged: (1) more Indigenous content is needed, (2) there needs to be an Indigenous voice represented throughout the development and delivery of curricula, (3) support for improved content needs to "come from the top" of the institution, and (4) the content needs to be developed and implemented methodically, not merely to "check a box". This research is being used at Dalhousie University to inform the introduction of policies that mandate first-rate Indigenous content in health professions curricula. This research presents important baseline data for universities across Canada working towards equitable healthcare delivery.

Conclusion: Improving the quality of Indigenous health education is crucial for producing culturally competent healthcare professionals who can serve Indigenous peoples and communities. Reforming health profession curricula to include sufficient content related to Indigenous health is therefore foundational in reducing the health inequities experienced by Indigenous peoples across Canada.

All Authors: Nicole Doria, Dalhousie University ; Maya Biderman, Dalhousie University; Amy Bombay, Dalhousie University; Jordan Boudreau, Dalhousie University; Jad Sinno, Dalhousie University ; Michael Mackley, Dalhousie University

Objectives: This study sought to understand and compare the initiatives at Canadian medical schools aimed to increase the recruitment, admissions, and success of Indigenous students in their medical programs.

Approach: Data were collected from each of the 17 Canadian medical schools in the form of an environmental scan. An open-ended questionnaire and/or a one-on-one semi-structured follow up interview was also conducted with stakeholders from each university. All data were collated into a report that was reviewed by each university prior to finalization.

Results: Overall, the admissions and support programs for Indigenous students at Canadian medical schools were highly variable. Compared to a similar report published in 2010 by the Indigenous Physicians Association of Canada and the Association of Faculties of Medicine, most schools have not made significant updates to their admissions processes or programming. This is despite the Calls to Action of the Truth and Reconciliation Commission (TRC) stating that medical schools must increase the number of Indigenous professionals working in the healthcare field. Increasing the number of Indigenous physicians is a vital step towards reducing the disparity in health outcomes for Indigenous peoples and to providing culturally relevant and meaningful healthcare. This report is the first of its kind since the TRC Calls to Action were released.

Conclusion: Tracking the efforts of medical schools is critical to ensuring accountability and action towards the TRC recommendations. This report is a helpful tool for medical schools to identify both gaps and best practices in relation to admissions, policies, and programs for Indigenous students.

All Authors: Nicole Doria, Dalhousie University ; Maya Biderman, Dalhousie University; Amy Bombay, Dalhousie University; Liz Munn, Dalhousie University

ID: 407
Author: Dr. Shelley Doucet
Title: Implementation and evaluation of NaviCare/SoinsNavi: A navigation centre aimed at improving access to care for children with complex health conditions
Type of Abstract: Oral

Objectives: NaviCare/SoinsNavi is a patient navigation centre in New Brunswick for children with complex health conditions. The objectives of this presentation are to: 1) present an overview of patient navigation as an effective way to facilitate more convenient and integrated care, and 2) present early findings from the implementation of NaviCare/SoinsNavi.

Approach: A qualitative descriptive design was used to explore parents' experiences and satisfaction with NaviCare/SoinsNavi. Twenty participants were identified from the families who have received services from NaviCare/SoinsNavi using a purposeful sampling technique. Data was collected using semi-structured interviews, which were conducted either face-to-face or over the phone. Additional demographic information was collected to provide context. The data was analyzed using inductive thematic analysis, which is a research method for identifying, analyzing, and reporting themes within the data (Braun & Clarke, 2006).

Results: Although children served by the centre vary by condition, age, and gender, the profile of the typical child is as follows: male, between the ages of 6 and 11, diagnosed with autism spectrum disorder (ASD) or Attention Deficit Hyperactivity Disorder (ADHD). Most common reasons for calling the centre include respite care, after school care, camps, and service referrals. The qualitative findings demonstrate that families have substantial needs reflecting service gaps and barriers in care delivery across the province. Overall, families were extremely satisfied with the centre. Emerging themes include a relief to find someone who would listen to them, reduced feelings of stress, improved care coordination, and increased knowledge of programs/services.

Conclusion: This study demonstrates that patient navigation programs are an innovative service delivery approach to improve the integration of care for individuals with complex conditions. Future research is needed to measure the impact of patient navigation programs on care coordination, return on investment, and health outcomes to inform policy and practice.

All Authors: Shelley Doucet, University of New Brunswick; Alison Luke, University of New Brunswick ; RIma Azar, Mount Allison University ; Jennifer Splane , NaviCare/SoinsNavi

ID: 290
Author: Mr. Arnaud Duhoux
Title: Improving accessibility, efficiency and quality of care: How Integrated Primary Care Teams (IPCT) stand out?
Type of Abstract: Oral

Objectives: An efficient health system depends on its ability to establish a continuum of care accessible and efficiently delivered. Increasing interdisciplinarity work and nursing practice is likely to improve performance. The objective is to compare changes in accessibility, efficiency and quality between IPCT and non-IPCT patients over a 2-year period.

Approach: Design: cohort study with a comparison group

Setting: 7 primary care team pilot sites relying on an expanded nursing role within a more intensive team-based, interdisciplinary setting in Quebec.

Participants: 3048 patients recruited in the waiting rooms of the IPCT. Each patient was matched with 4 patients followed within a traditional primary care model on 4 criteria for a total sample of 15 240 patients.

Outcome Measures: indicators of accessibility, efficiency and quality of care were measured over the year prior to the inception in the study and the following year using a combination of five medical-administrative databases.

Results: The IPCT patients achieved different results on most of the measured indicators such as accessibility (primary care visits, emergency department visits, hospitalization and attendance rates) efficiency (relative costs of the care trajectories of each of the two cohorts) and quality of care (such as relational continuity) compared to non-IPCT patients. The 2-year period analysis also show variations in the performance indicators for IPCT patient before the inception in the study and the following year.

Conclusion: Primary care teams with interdisciplinarity composition and work and a large nursing scope of practice achieve different results on performance indicators than traditional primary care organizations based on a 2-year period. Future analysis will be conducted on a 4-year period and may enable a better understanding of the effects.

All Authors: Arnaud Duhoux, Université de Montréal; Damien Contandriopoulos, University of Victoria; Dominique Laroche, Université de Montréal; Mélanie Perroux, Université de Montréal

Title: Implementation of Integrated Care Pathways: a developmental evaluation of a Quebec Integrated Academic Health and Social Services Centre (IAHSSC) project
Type of Abstract: Oral

Objectives: Health organizations are characterized by the complexity of their activities and a high level of fragmentation within their services. The implementation of care pathways is viewed as an answer to this problem. We conducted a developmental evaluation to support the implementation of care pathways in one IAHSSSC in Québec.

Approach: In this study we describe the development of the care pathways and analyze the process of innovation within a developmental framework. Developmental evaluation is an approach well-suited for evaluating complex interventions. Evaluators provide real-time feedback to program implementers, and support the development of social innovation by 1-identifying relevant knowledge to inform the process and by 2- infusing evaluative thinking through collaboration between implementers and the evaluator.

Using a qualitative approach, we conduct a process analysis with a single case study with multilevel of analysis. Empirical data were collected through documentation, observation (N=23), and semi-structured interviews with key informants (N=17).

Results: Our results give a detail account of the practices put in place by the implementers and the impacts of the feedback on the adaptation processes.

 Our findings show a partial use of scientific knowledge in decision-making and highlight the role sensemaking processes primarily to help promote change. The results also identify the struggle to dissiminate the knowledge gained from the project within the rest of the organization. Finally, our results identify several individual, organizational and program design factors that facilitated and/or impeded the implementation of the care pathways within the organization.

Conclusion: The developmental evaluation, through data-informed approach was critical to addressing the uncertainty and complexity that might have otherwise inhibited development. Our study provided interesting insights into how the development came about and of the contributions developmental evaluation made in this case.

All Authors: Marie-France Duranceau, Université de Sherbrooke; Lara Maillet, Institut Universitaire de première ligne en santé et services sociaux. Centre intégré universitaire de santé et services sociaux de l'Estrie - CHUS; Mylaine Breton, Universite de Sherbrooke;

ID: 188
Author: Dr. Anna Durbin
Title: Prevalence of intellectual and developmental disabilities among newcomers, and the health and health service use of this group: A retrospective cohort study
Type of Abstract: Oral

Objectives: Although attention has increasingly been devoted to newcomer health, newcomers with intellectual and developmental disabilities (IDD) are poorly understood. This study first compared the prevalence of IDD among newcomers and non-newcomers in Ontario, Canada and second assessed how having IDD affected the health profile and health service use of newcomers.

Approach: This population-based retrospective cohort study of adults aged 19-65 in 2010 was conducted in Ontario, Canada using linked health and social services administrative data including data on newcomers from the Immigration, Refugees and Citizenship Canada database that identifies newcomers to Ontario after 1984. To address the first objective, the prevalence of IDD among newcomers (n=1,649,633) and non-newcomers (n=6,880,196) was compared. For the second objective we compared newcomers with IDD (n=2,830) to newcomers without IDD (n=1,646,803) in terms of health conditions, community service use and hospital service use. Age- and sex-adjusted risk ratios were calculated from modified Poisson regression models.

Results: While newcomers represent a lower proportion in the population with IDD than in the general population, newcomers also had a lower prevalence of IDD than non-newcomers (171.6 versus 898.3 per 100,000 adults, p<0.001).

Among newcomers, those with IDD had a higher age-and sex-adjusted prevalence of diabetes, hypertension, chronic obstructive pulmonary disease, congestive heart failure, cancer, asthma, non-psychotic, psychotic, substance use, and concurrent disorders than those with no IDD. Newcomers with IDD were also more likely than their comparators to visit primary care physicians, psychiatrists, and other specialist physicians. They were also more likely to make 1+ ED visit and frequent ED visits as well as 1+ hospital admission and frequent hospital admissions. Largest differences were in mental health and addictions disorders, and frequent hospital use.

Conclusion: Newcomers with IDD had higher medical and psychiatric comorbidity than other newcomers. While these results parallel findings that people with IDD are more vulnerable than others in the general population, they also emphasize the need for newcomers with IDD and their families to have access to appropriate supports upon arrival.

All Authors: Anna Durbin, Ms; Yona Lunsky, Centre for Addiction and Mental Health; Hannah Chung, Institute for Clinical Evaluative Sciences; Elizabeth Lin, ; Robert Balogh, UoIT; James Jung, University of Toronto

Author: Dr. Louisa Edwards
Title: The PREFeR (PRioriEtes For Research) Project: Patient priorities for primary care research in British Columbia
Type of Abstract: Oral

Objectives: Primary care research often focuses on understanding patient needs and gaps in care, but patients are infrequently included in prioritizing research ideas. Patient and clinician priorities may significantly differ. PREFeR (PRioritiEs For Research) aims to identify patient-generated priorities for primary care research in British Columbia, comparing patient and clinician perspectives.

Approach: Framed by the Dialogue Model and employing Nominal Groups Technique, a Patient Advisory group explored experiences of primary care. Patients reviewed, discussed, and individually ranked the topics that emerged. Online surveys were administered province-wide to capture patient and primary care provider ratings of importance of the top 10 topics. Overall and between-group (e.g., rural-urban) importance ratings were compared and linear regressions tested socio-demographic predictors of topic importance. Rapid literature reviews evaluated research hits within a Canadian and provincial context. A final dialogue event will bring patients and clinicians together, identifying areas of agreement and disagreement.

Results: The 10 members recruited to the Patient Advisory provided over 80 experiences of 'what stood out' in BC primary care, which were grouped thematically into 18 topics. Amongst the top 10 ranked topics, 'patient-centred care', 'information sharing/electronic medical records', and 'lack of regular primary care provider' scored highly. Preliminary survey results of patient and provider priorities overall and by socio-demographic groups will be forthcoming. Findings from rapid literature reviews indicate variability in the extent of research amongst the 10 topics within Canada and BC.

Conclusion: Involving patients in primary care research priority setting is important to patients, feasible, and fruitful. Ultimately, this benefits the intended end-users, leading to more efficient resource use. Patient-identified priorities are broad themes that future projects could develop into specific research questions. Topic importance, patient-provider alignment, and under-researched areas require consideration.

All Authors: Louisa Edwards, Faculty of Health Sciences, Simon Fraser University; Centre for Clinical Epidemiology and Evaluation, Vancouver Coastal Health Research Institute; Melody Monro, Fraser Health Authority, Population & Public Health Office; Hayley Pelletier,

Title: Promoting the use of a self-management strategy among novice chiropractors treating individuals with spine pain: A mixed methods pilot cluster-clinical trial
Type of Abstract: Oral

Objectives: To evaluate the feasibility and the potential effects of a Knowledge Translation (KT) intervention promoting the use of self-management support (SMS) strategies among chiropractors and chiropractic interns and individuals with spine pain compared to "wait list".

Approach: This is a pilot clustered clinical trial. Clusters consist of 20 Patient Management Teams (PMTs) across 5 Canadian Memorial Chiropractic College clinics. Each PMT is composed of 6-9 interns supervised by a clinician. The 20 PMTs were allocated to either a theory-KT intervention (Brief Action Planning (BAP) training workshop, BAP webinar, BAP online module, and opinion leader) or to a waiting list. Routine electronic data collection across PMTs will serve to measure clinicians' and interns' use of BAP. Questionnaires will assess clinicians' and interns' BAP knowledge, skills and self-efficacy, and patients' BAP self-efficacy, SMS participation level, pain intensity, and disability.

Results: We are still collecting data, and we will have results by the conference time to present

Conclusion: This study will provide new knowledge on the impact of a tailored KT intervention and the factors influencing guideline implementation in chiropractic clinical teaching settings. Ultimately, this study may contribute towards sustained use of SMS strategies in future clinicians, and improve patient health outcomes.

All Authors: Owis Eilayyan, McGill University; Andre Bussières, McGill University; Aliki Thomas, McGill University; Sara Ahmed, McGill University ; Al zubi Fadi, McGill University; Craig Jacobs, Canadian Memorial Chiropractic College; Anthony Tibbles, Canadian Memori

Title: Engaging vulnerable and disadvantaged populations in the experience based co-design (EBCD) and implementation of public services: the case of youth mental health
Type of Abstract: Oral

Objectives:

1. Explore experiences of youth, family members and front-line service providers' development and early implementation of two co-designed innovations;
2. Examine how implementation science tools integrate into an EBCD study;
3. Develop a tool-kit and theory describing how to integrate EBCD and implementation science to support successful service redesign

Approach: A mixed methods approach consisting of an ethnographic study design with an embedded quantitative survey component. Embedded in the overarching qualitative ethnographic design, we will collect information on readiness for implementation using a validated implementation science tool. Information will also be collected using video and audio recordings; journaling; meeting content and document analysis; interviews and surveys as participants refine the prototypes using EBCD approaches during the development phase and test them during the early installation phase of implementation. Consistent with EBCD research, this project will involve groups of youth with mental illnesses, support system partners, health professionals, and policy

Results: The EBCD study brought youth, family members and service providers together to share perspectives and develop prototypes for child to adult mental health service transition improvement in the Hamilton region. Eight health service organizations and as many as 53 participants have been involved in various project stages. Participants co-designed six improvement prototypes and have since prioritized two prototypes for implementation planning – one a system navigator model and the other an online portal to improve access and communication among youth, family members and service providers - based on feasibility and impact considerations. Next steps are to engage these groups in assessing factors related to prototype implementation in Hamilton region. Initial results, including a pilot toolkit and initial theory will be developed by CAHSPR conference.

Conclusion: The EBCD process is valuable in including perspectives and ideas of stakeholders that assist to improve communication and knowledge mobilization for a user oriented service redesign. Results from the series of EBCD sessions create an evidence-based tool-kit for how to best integrate learnings from EBCD and implementation science.

All Authors: Mark Embrett, St. Francis Xavier University; Gillian Mulvale, McMaster University; Ashleigh Miatello , McMaster University ; Samantha Brandow, McMaster University

ID: 456
Author: Dr. Jenna Evans
Title: Managing the Performance of Cancer and Renal Services in Ontario: Stakeholder Perspectives and a Research Agenda
Type of Abstract: Oral

Objectives: There is an increasing push to not just measure health system performance, but also to actively 'manage' it by providing feedback, establishing accountability, and applying incentives. The aim of this study was to assess performance management (PM) of cancer and renal services in Ontario and prioritize future research directions.

Approach: Cancer Care Ontario (CCO) manages the performance of 13 Regional Cancer Programs and 26 Regional Renal Programs. We conducted semi-structured interviews and focus groups with internal, regional, and external stakeholders to identify strengths and weaknesses of CCO's PM system, and to assess and rank five research directions we identified via a literature review. We used a hybrid approach of inductive and deductive coding for theme development, drawing from agency, actor-network, and social capital theories. We analyzed the rankings of each research direction using four methods: mean, mode, frequency ranked 1st or 2nd, and frequency ranked 5th.

Results: A total of 156 individuals participated in the study, including administrative, clinical, and policy stakeholders, as well as patients. Key strengths identified of CCO's PM system included province-wide data management and reporting, clinician engagement, and a collaborative tone. The key weakness identified was the 'opportunity cost' associated with data collection and reporting, and the number and scale of improvement initiatives. Cross-cutting themes included: (a) PM as a dynamic socio-technical process, (b) the influence of multi-level contextual factors, and (c) a tension between PM for accountability versus improvement. Stakeholder groups prioritized different research directions based on their experiences and decision-making needs. However, they all ranked highly the need to better understand if/how the PM tools and processes motivate improvement among leaders and staff in regional programs.

Conclusion: Stakeholders agreed that CCO has a robust PM system that has positively impacted care delivery, but that further refinement is required. Despite differences in the maturity of the PM systems in cancer versus renal care, themes were overlapping. The results have implications for healthcare leaders, policy-makers, and researchers.

All Authors: Jenna Evans, Cancer Care Ontario; Julie Gilbert, Cancer Care Ontario; Victoria Hagens, Cancer Care Ontario; Vicky Simanovski, Cancer Care Ontario; Philip Holm, Ontario Renal Network; Garth Matheson, Cancer Care Ontario

ID: 468
Author: Dr. Jenna Evans
Title: Assessing the Delivery of Integrated Care to Patients with Chronic Kidney Disease in Ontario: Patient and Provider Perspectives
Type of Abstract: Oral

Objectives: Patients with Chronic Kidney Disease (CKD) typically have complex health needs, and thus require care that is integrated across professionals and organizations. The extent to which patients with CKD in Ontario receive integrated care is unclear. This study assessed integrated care delivery province-wide from the patient and provider perspectives.

Approach: A five-item survey for providers was developed drawing from theory and existing validated surveys, and cognitively tested and revised with renal providers. This survey was administered during Fall 2017 via the web by the Ontario Renal Network (ORN) to 596 purposefully selected providers, including nephrologists, nurses and social workers, among others. Four items from the Patient Assessment of Chronic Illness Care (PACIC-26) were used to capture the patient perspective. The patient survey was administered during Summer and Fall 2017 by NRC Health to a random sample of 14,257 Multi-Care Kidney Clinic and chronic dialysis patients across Ontario.

Results: A total of 314 providers responded to the survey (52% response rate) and 2,447 patients responded to the survey (17% response rate). Among providers, key findings include: 36% reported their patients' care was well-coordinated across settings; 54% reported participating in interdisciplinary discussions to develop care plans for their patients; and 51% reported they are aware of appropriate home and community services to support their patients (% reporting 'always' or 'most of the time'). Among patients, key findings include: 20% were encouraged to attend programs in the community; 34% were told how their visits with other types of doctors helped their treatment, and 38% were asked how their visits with other doctors were going (% reporting 'always' or 'most of the time').

Conclusion: The survey results suggest that patients with CKD in Ontario are not consistently receiving integrated care. Key areas for improvement include linkages to community-based services and patient-provider communication. Standardized measurement of integrated care delivery over time, using surveys such as these, can support local quality improvement and broader system transformation.

All Authors: Jenna Evans, Cancer Care Ontario; Saurabh Sati, Ontario Renal Network; Sharon Gradin, CCO; Marnie Mackinnon, ; Peter Blake, Ontario Renal Network

ID: 520
Author: Ms. Stacey Fisher
Title: Dementia Population Risk Tool (DemPoRT): Predictive Algorithm for Assessing Dementia Risk in the Community Setting
Type of Abstract: Oral

Objectives: Existing population projections of dementia prevalence are simple and have poor predictive accuracy. The Dementia Population Risk Tool (DemPoRT) predicts incidence of dementia in the population setting using multivariable modeling techniques, and will be used to project dementia prevalence.

Approach: The Dementia Population Risk Tool, a predictive algorithm for risk of dementia, was developed using elderly Ontario respondents of the Canadian Community Health Survey (CCHS) (2001, 2003, 2005, 2007; 18 785 males and 25 316 females). Incident dementia was identified through individual linkage of survey respondents to population-level administrative health care databases. Using time of first dementia capture as the primary outcome and death as a competing risk, sex-specific proportional hazards regression models were estimated. The pre-specified model includes 32 predictors (63 degrees of freedom) capturing information on socio-demographic characteristics, general and chronic health conditions, health behaviors and physical function.

Results: There were 1 059 and 2 071 cases of incident dementia, and 120 280 and 171 574 person-years of follow-up, for males and females, respectively. The DemPoRT algorithm is discriminating (C-statistic: males 0.795 (95% CI: 0.776, 0.814); females 0.805 (95% CI: 0.791, 0.819)) and well-calibrated in a wide range of subgroups including behavioral risk exposure categories, sociodemographic groups, stroke, diabetes and hypertension status.

Conclusion: Health system planning in anticipation of growing dementia prevalence requires reliable projection estimates. DemPoRT is the first and most comprehensive population-based algorithm for predicting dementia incidence, with the potential to improve the ability to answer key policy questions with respect to the future burden of dementia in Canada

All Authors: Stacey Fisher, Ottawa Hospital Research Institute; Amy Hsu, Bruyère Research Institute; Monica Taljaard, Ottawa Hospital Research Institute; Doug Manuel, Ottawa Hospital Research Institute; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital R

ID: 356
Author: Dr. Sarah Funnell
Title: Places of death and places of care for Indigenous people in Ontario: a retrospective cohort study
Type of Abstract: Oral

Objectives: This study aims to describe the places of care and places of death for Indigenous decedents in Ontario that received provincially-funded homecare services. This study also describes the characteristics of Indigenous decedents and how these characteristics compare to non-Indigenous decedents.

Approach: Particular care was spent in engaging a national Indigenous health care organization throughout the research process. A transparent research agreement guided prior to beginning the study was created and incorporated Indigenous ways of knowing. A retrospective population level cohort of Indigenous and non-Indigenous decedents, who died between April 1, 20110 and March 31, 2015, was created using encrypted unique identifiers in health administrative databases housed at the Institute for Clinical Evaluative Sciences, Ontario. Characteristics, places of death and places of care was described by linking to several other databases.

Results: Indigenous decedents were younger, had more chronic diseases and were more likely to live in lower income neighbourhoods. Indigenous decedents spent more time in acute care settings in the last year of life and a greater proportion died in acute care settings. When controlling for age and sex, Indigenous decedents received fewer home care hours. When controlling for age, sex, presence of diabetes and other socio-economic factors such as neighbourhood income, Indigenous decedents were less likely to have received a palliative physician home visit (OR 0.72). Having had a palliative physician home visit among Indigenous decedents decreased the odds of dying in acute care (OR 0.50), and decreased the likelihood of days in acute care (RR 0.82).

Conclusion: Our study identified a health care gap in end of life care for Indigenous people in Ontario. There likely are changes needed in the health care system in order for Indigenous patients to have their end-of-life health care needs met.

All Authors: Sarah Funnell, University of Ottawa; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Doug Manuel, Ottawa Hospital Research Institute; Angeline Letendre, Canadian Indigenous Nurses Association; Lisa Bourque-Bearskin, Can

ID: 125
Author: Mr. Kirk Furlotte
Title: Understanding long-term care needs of older gay and bisexual men
Type of Abstract: Oral

Objectives: A Canadian Frailty Network-funded national study sought to understand later-life issues and end-of-life (EOL) planning of older lesbian, gay, bisexual, transgender, queer, intersex, and two-spirited (LGBTQI2S) adults. This research represents subset data analysis aimed at understanding unique experiences of gay, bisexual, and other men who have sex with men (gbMSM).

Approach: Focus groups were held at sites across Canada (Vancouver, Edmonton, Toronto, Montreal, and Halifax) with older LGBTQI2S adults (sorted by sexual orientation or gender identity) and service providers. Participants completed surveys on EOL planning and preparation. Focus groups were facilitated using semi-structured question guides covering three main areas: plans for EOL care, community connection/support, and technology use. Transcripts from the older gbMSM groups were thematically analyzed employing descriptive qualitative methodology and mapped to an inverted socioecological model prioritizing policy for health promotion interventions. Analysis included labelling participant-identified EOL planning and care barriers and facilitators for older gbMSM.

Results: In keeping with existing literature, preliminary data analysis indicates older gbMSM are marginalized in healthcare through heterosexism, excluded in LGBTQI2S community due to ageism, and experienced a dwindling support network from the effects of aging. Older gbMSM expressed plans to rely on long-term care facilities for their later life and EOL needs. Yet strong hesitance and fear of non-welcoming environments was a recurring theme with participants expecting neglect and/or abuse due to their sexual orientation. This fear extended to facility employees and other residents. Most participants felt they would need to go back into the closet, concealing their sexual orientation and much of their lives, to receive the best possible care. A desire for LGBTQI2S-specific facilities was a recurring point of discussion.

Conclusion: Long-term care facilities need to animate policies fostering LGBTQI2S-inclusive environments through staff training, representational promotional material, resident education, and community outreach. Home care services should duplicate these approaches and could benefit from proactively marketing their services to LGBTQI2S communities given the current reticence by many to use long-term care facilities.

All Authors: Kirk Furlotte, Community-Based Research Centre

ID: 126
Author: Mr. Kirk Furlotte
Title: Minimizing and misinterpreting: Young men, sexual health, and help-seeking behaviour
Type of Abstract: Oral

Objectives: The purpose of this study was to understand perceptions and attitudes which influence help-seeking behaviour in relation to sexual health among young men (aged 18-25) in Halifax, Nova Scotia. The research sought to answer questions relating to the cohort's perceived barriers and gain understanding of their motivation to seek treatment.

Approach: A quantitative approach was used to explore how young cisgender men define opinions and illuminate the divide between health knowledge and health behaviour. Over a period of four months, surveys were offered at a sexual health clinic; participants provided data on demographics, use of the clinic, health behaviour, and help-seeking (through a modified version of the Barriers to Help-Seeking Scale [BHSS]). The BHSS measures participant agreement to how specific scenarios affect decisions to seek medical help through Likert-scale responses. All surveys were completed anonymously. Data from surveys was then compiled for descriptive statistical analysis.

Results: Of the total responses received (n=16), half met the inclusion/exclusion criteria (n=8) with an average age of 21. Sexual identity was fairly diverse (heterosexual, n=4; gay, n=2; bisexual, n=2). Participant education levels were high (some university or college, n=7). Ethnic background was primarily Caucasian (n=6; Aboriginal/First Nations, n=1, African/Caribbean, n=1). Most indicated no preference when it came to healthcare provider gender, though some preferred female clinicians. Of the five factors the BHSS measures (need for control and self-reliance; minimizing problem and resignation; concrete barriers and distrust of caregivers; privacy; and emotional control), distrust of caregivers ranked lowest, indicating comfort with healthcare professionals. Minimizing problem and resignation had consistent affinity across participants' responses indicating unsure or moderate agreement to these questions.

Conclusion: While most young men demonstrated trust in healthcare professionals, they minimized or misinterpreted concerns; strongly deterring help-seeking behaviour. The inability to recognize problems earlier puts them at unnecessary risk. Campaigns to help them develop efficacy recognizing health concerns, leading to timely and appropriate care, are crucial in encouraging help-seeking behaviour.

All Authors: Kirk Furlotte, Community-Based Research Centre; Jacqueline Gahagan, Dalhousie University

ID: 417
Author: Dr. Rebecca Ganann
Title: Co-design, production, and usability testing of a communication toolbox for delivering evidence-informed health information to older adults
Type of Abstract: Oral

Objectives: 1. Determine how older adults gain access to trusted health information and identify their needs to inform the design of a communication toolbox. 2. Apply design principles to the production of a communication toolbox. 3. Evaluate preliminary toolbox usability and older adult user engagement in the co-design process.

Approach: An innovative persona-scenario method was utilized to determine user needs identified by diverse older adults. Data were analyzed to identify requirements for packaging health information. User requirements were converted into design specifications that informed production of a communication toolbox to enhance delivery of trusted health information on the McMaster Optimal Aging Portal website. Production involved development of an introductory video for the existing website, design adaptations to enhance presentation of evidence summaries, and outreach strategies. Preliminary usability testing using a Human Computer Interaction Lab and an evaluation of user engagement in the co-design process were conducted; both were analyzed descriptively.

Results: Eighteen older adults working in pairs participated in a persona-scenario exercise, creating 12 persona-scenarios. Personas varied in gender, age, comfort with technology, health concerns, available social support, and access to primary care. Persona-scenarios informed toolbox design and formatting requirements for diverse older adults including: non-electronic and multi-modal electronic approaches to accessing relevant, concise, clear language summaries; accessibility; and privacy. User specifications were grouped into four major categories: content, framing of content, technical formats and functionalities, and knowledge translation strategies. Preliminary usability testing supported value of an introductory video and integration of pictorial and multi-media approaches for content delivery. Users also offered valuable insights to further refine the prototypes (e.g., levelling of language, content clarity, depth of information presented, and ability to opt-in more as desired).

Conclusion: Evidence-informed health information to support community-dwelling older adults in maintaining their health is essential. Relevant users were meaningfully engaged in developing novel approaches to communicating evidence-based health information. The communication toolbox can inform knowledge translation approaches by researchers and providers targeting older adults and their caregivers.

All Authors: Rebecca Ganann, McMaster University; Ruta Valaitis, McMaster University; Stephen Gentles, McMaster University; Cynthia Lokker, McMaster University; Alfonso Iorio, McMaster University; Tahir Irtaza, McMaster University; Opeyemi Okelana, McMaster University

ID: 351
Author: Ms. Sophiya Garasia
Title: Clinical outcomes and health care use in medically uninsured populations in Canada: a systematic review
Type of Abstract: Oral

Objectives: This study aimed to gain a comprehensive understanding of health outcomes and trends in health care use in medically uninsured populations in Canada as well as the associated health care costs, using a systematic review approach.

Approach: The review was accomplished by 1) establishing a search strategy a priori 2) conducting a literature search in four databases 3) screening articles for relevance 4) extracting data from relevant articles and assessing their risk of bias and 5) summarizing and reporting the results. Exclusion criteria included articles that did not provide any quantitative data on health outcomes and health care use in provincially uninsured populations (e.g. undocumented individuals, asylum-seekers not eligible for the federal health program, international students, newly arrived immigrants waiting to obtain provincial health insurance, etc..) or its associated costs in the Canadian context.

Results: The search strategy resulted in 1894 citations, with roughly an equal proportion from each database searched. After removing duplicates and screening articles using the inclusion and exclusion criteria, a total of nine articles were deemed relevant and were included in the review. The results showed that differences exist amongst insured and uninsured groups in reported health outcomes and health care use. Notably, poor mental health was reported frequently in uninsured populations followed by injuries, respiratory conditions and gestational diabetes. In terms of health care utilization, many uninsured women were reported to utilize midwives and community health clinics rather than hospital or physician services. No studies on economic costs, either to the health care system or the medically uninsured individuals studied, were captured in the search.

Conclusion: Being provincially medically uninsured is associated with poorer health outcomes and low levels of health service use. These results can be used to prioritize future research on uninsured populations in Canada as well as inform decision-makers on the need to expand insurance coverage to medically uninsured populations.

All Authors: Sophiya Garasia, McMaster University

ID: 152
Author: Mrs. Evgenia (Jenny) Gatov
Title: Burden of Alcohol Use Disorders in the Emergency Department: A Population-Based Cohort Study in Ontario, Canada
Type of Abstract: Oral

Objectives: Alcohol use is a common reason for frequent emergency department (ED) visits. We sought to describe a population of patients with frequent ED visits for alcohol-related reasons with respect to sociodemographic and clinical characteristics, and examine their mortality and health service utilization.

Approach: In this population-based cohort study, we identified all Ontario residents aged 16 and older who were frequent users of the ED for alcohol-related reasons (≥2 unscheduled annual visits) between April 1, 2010 and March 31, 2015, and classified them into three severity groups: only 2 annual visits, 3-4 visits, and ≥5 visits. We examined their sociodemographic and clinical characteristics, including time between ED visits, and utilized Cox proportional hazards regressions to examine mortality and health service use in one year follow-up.

Results: Of 19,173 frequent ED users, 66.0% had only 2 annual alcohol-related ED visits, 27.9% had 3-4 visits, and 12.1% had ≥5 such visits. Frequent ED users were more likely to be male, aged 45-64, live in urban centres and lower-income neighbourhoods, and to be admitted by ambulance, compared to those with fewer annual alcohol-related ED visits. Approximately one in three individuals had two alcohol-related ED visits within a 30-day timeframe and 12.9% were hospitalized during their index visit. Overall, a 5.3% one-year mortality rate was observed; patients with 3-4 and ≥5 visits had 17% and 58% greater mortality rates, respectively, compared to those with 2 visits (HR=1.17, 95% CI 1.01-1.36 and HR=1.58, 95% CI 1.34-1.86), after adjustment for socio-demographic and clinical factors.

Conclusion: Individuals who frequent the ED for alcohol misuse are relatively young and live in urban regions. They have a very high mortality rate that increases with increased alcohol-related ED utilization, which suggests a need for more systematic engagement, harm reduction, and aligned public health interventions.

All Authors: Evgenia (Jenny) Gatov, ICES; Paul Kurdyak, CAMH; Jennifer Hulme, University of Toronto; Edward Xie, University Health Network; Chenthila Nagamuthu, Institute for Clinical Evaluative Sciences ; Hasan Sheikh, University Health Network WebsiteDirections

ID: 239
Author: Mrs. Evgenia (Jenny) Gatov
Title: Prevalence of past history of abuse among male and female psychiatric inpatients in Ontario, Canada: a population-based study.
Type of Abstract: Oral

Objectives: Recent research has emphasized the importance of ascertaining past history of abuse in psychiatric populations, but little is known about differences between males and females. We sought to describe the prevalence of prior trauma and its variations among male and female psychiatric inpatients.

Approach: In this population-based cross-sectional study, we used linked health administrative data to identify all Ontario psychiatric inpatients between April 1, 2009 and March 31, 2016. We examined their sociodemographic and clinical characteristics, and quantified the prevalence of reporting a history of physical, sexual, emotional, and multiple types of abuse at the time of hospital admission in females, compared to males. We used modified Poisson regressions with robust standard errors to adjust for age. As sensitivity analyses, we stratified the cohort by discharge diagnosis, and examined individuals reporting more recent abuse (one year, one month).

Results: Among 160,436 psychiatric inpatients (51.1% males), one in three reported a lifetime history of abuse of any kind. The overall prevalence of lifetime abuse was 39.6% in females and 24.1% in males (adjusted prevalence ratio [adj-PR]=1.68, 95% CI 1.61-1.71). This disparity was greater among those reporting past year (adj-PR=2.21 95% CI 2.13-2.30) and past month (adj-PR=2.37 95% CI 2.25-2.49) abuse. Each type of lifetime abuse was more prevalent in females, although the difference was most pronounced for sexual abuse (adj-PR=2.82, 95% CI 2.74-2.89). Females were three times more likely to report a lifetime history of all three types of abuse, compared to males (adj-PR=3.00, 95% CI 2.90-3.11). The prevalence of self-reported abuse in both sexes was highest among those diagnosed with substances abuse and anxiety.

Conclusion: These findings have significant clinical implications, given the high prevalence of abuse among psychiatric inpatients. Different targeted approaches may be required for males and females given the variability in the types of trauma they experience. Future research is needed to examine the treatment trajectories of psychiatric patients who experience abuse.

All Authors: Evgenia (Jenny) Gatov, ICES; Paul Kurdyak, CAMH; Astrid Guttmann, ICES; Natasha Saunders, The Hospital for Sick Children; Simon Chen, Institute for Clinical Evaluative Sciences; Simone Vigod, Women's College Hospital

ID: 12
Author: Ms. Adriane Gear
Title: Is Violence Part of the Job? Are Violence Prevention Policies Enough?
Type of Abstract: Oral

Objectives: Workplace violence is on the rise in healthcare. Nurses account for 31% of all workplace injuries due to violence. British Columbia legislation requires employers to implement policies and practices that mitigate risk. This presentation will examine the effectiveness of current policies, and recommend revisions.

Approach: Academic researchers and provincial nurses' union data analysts used mixed methods to examine direct care nurses' perspectives of current policy effectiveness. Two survey approaches were used: a) a convenience sample of 3000 nurses, and b) a stratified random sample of 500 nurses from acute, community, and long-term care sectors. Focus groups were conducted with a purposeful sample of 100 nurses.

Results: The majority of direct care nurses in all sectors reported verbal (80%) and physical abuse (68%). Review of policies and practices related to education, workplace drills, personal alarms, security, physical barriers, and alert systems revealed that nurses do not feel safe in their workplaces. For example, 80% of nurses did online education modules, but 67% stated that they never do 'Code White' drills (i.e., practice). 28% said that violent incidents are never reviewed with staff, although policy requires employers to assess hazard risks with them. 23% of nurses call security weekly for help, yet 20% of nurses did not know the role of security within their facilities.

Conclusion: This presentation will describe how these data will inform strategies for violence prevention including incident reporting, data sharing, and ongoing monitoring and evaluation. It is vitally important that consistent measures are used to track the extent of workplace violence, and we will therefore make recommendations of violence indicators that are of importance to nurses.

All Authors: Adriane Gear, BC Nurses' Union; Maura MacPhee, BC Nurses' Union

Objectives: Resource Utilization Groups version 3 Plus (RUG-III Plus) case mix index (CMI) values are organizational decision support tools that provide an estimate of resource use in residential care organizations. This work presents a novel approach for deriving and applying CMI values in residential care.

Approach: The RUG-III Plus residential care case mix system can be used to for a variety of applications such as planning, evaluating, funding and risk adjusting key performance measures. This presentation introduces RUG-III Plus CMI values created by the Canadian Institute for Health Information (CIHI) in partnership with stakeholders across Canada. The approach to derive these CMI values will be discussed including applying mixed methods to Canadian staff time measurement and assessment data, and devising novel approaches to account for data and methodological challenges. Additionally, applications of RUG-III Plus CMI values will be illustrated through case study examples.

Results: RUG-III Plus CMI values have been uniquely calibrated to be powerful Canadian residential care organizational decision support tools. Our work applies innovative methodological approaches to residential care assessment and staff time measurement data to improve resource use estimates. The resulting methodology to derive the CMI values addresses challenges such as interactions, confounding effects and low volumes. Sensitivity analyses were performed at various stages of this work and will be highlighted.

Policy makers and program managers can use RUG-III Plus CMI values to shape the future of Canada's health systems by improving delivery of care for Canadian seniors in residential care facilities. The CMI values provide an estimate of residential care organization resource use and may be applied to plan for and evaluate programming and policies.

Conclusion: RUG-III Plus CMI values provide policy makers and program managers with a powerful decision support tool they can use to shape the future of Canada's health systems and improve delivery of care for Canadian seniors in residential care facilities.

All Authors: Cristina German, Canadian Institute for Health Information; Jeff Poss, University of Waterloo; Jeff Hatcher, CIHI

Author: Dr. Laurie Goldsmith
Title: Designing a Patient Navigator Intervention for Supporting Total Knee Arthroplasty Patients Using Patient Engagement
Type of Abstract: Oral

Objectives: Total knee arthroplasty (TKA) is the most common joint replacement surgery in Canada. However, up to 20% of patients report dissatisfaction post-surgery. Our research team previously documented multiple areas for improvement for TKA patients. This follow-up work develops patient-centred interventions to improve patient experience and satisfaction with TKA surgery.

Approach: We used patient perspectives and patient engagement to develop interventions to improve patient experience and satisfaction with TKA surgery. Previous research by our team suggested multiple interventions to improve information sharing and support for TKA patients. To consider these interventions for future research, we recruited 15 former TKA patients (the "Patient Partners Group;" PPG) from our earlier research and a clinical registry. We purposefully recruited patients of varying ages, genders, ethnicities, and TKA experiences. We met with the PPG multiple times to review and revise the previously suggested interventions and to design research on the intervention endorsed by the PPG.

Results: Early PPG meetings endorsed all three interventions suggested by earlier research, and ultimately suggested the three interventions should be bundled together. Later meetings refined the bundle approach and highlighted a patient navigator program as the key intervention, with augmentation by a patient buddy program and systematic sharing of patient's TKA stories. The PPG also reflected on key outcome measures, ultimately endorsing overall quality of life as a replacement for the literature's reliance on patient satisfaction. We developed an implementation-effectiveness study with further assistance from the PPG, including developing the logic model for the design of the patient navigator program and its mechanisms and effects on patient quality of life and revising previously used data collection instruments.

Conclusion: Patient engagement resulted in nuanced and detailed planning of patient-centred interventions to improve patient experience and satisfaction with TKA surgery and challenged the dominant patient outcome measure in orthopedic research. Collaborating with patient partners produced a rich and detailed study design, with an accompanying comprehensive research team including patient members.

All Authors: Laurie Goldsmith, Simon Fraser University; Nitya Suryaprakash, Centre for Clinical Epidemiology and Evaluation

ID: 144
Author: Dr. Lauren E. Griffith
Title: Comparison of Self-Report vs. Administrative Data in Defining Multimorbidity
Type of Abstract: Oral

Objectives: While a number of researchers have examined agreement between self-reported and administrative data on individual chronic conditions, few have examined the implications for measuring multimorbidity. We used data from Ontario to: 1) examine agreement between self-report and administrative data sources on multimorbidity estimates, and 2) identify factors associated with agreement.

Approach: We use data on 71,317 community-living Ontarian residents aged 45+ from four cycles of the Canadian Community Health Survey (CCHS) linked with provincial administrative databases. Multimorbidity was determined based on 10 chronic conditions (CC) identified using pre-defined algorithms for administrative databases and self-reported clinical diagnosis from CCHS. We examined agreement between data sources on the number and type of chronic conditions and multimorbidity prevalence (using two common definitions: 2+ CC and 3+ CC). Logistic regression was used to explore the association between socio-demographic data from the CCHS and agreement on multimorbidity status.

Results: The average number of chronic conditions was higher using administrative data (1.87) compared to self-report (1.64); as was the prevalence of multimorbidity (administrative data: 2+: 55.0%; 3+: 30.0%; self-report data: 2+: 47.07%; 3+: 24.2%). The kappa for multimorbidity based on 2+CC was moderate (K=48.2) and generally declined with increasing age and number of chronic conditions. Agreement on the number of chronic conditions was 37.5%; but perfect agreement (both number and type) was 26.9%. For the 3+CC definition, the factors associated with agreement were younger age, immigrant status, higher income, occasional/non-smoker, not having a general practitioner, poorer physical health, and not being underweight. ORs for agreement on multimorbidity based on 3+ CC were more often in the direction expected (i.e., agreement increased as health status increased).

Conclusion: The average number of chronic conditions was higher using administrative data compared to self-report and disagreement between sources increased with age and number of chronic conditions. Perfect agreement on the number and type of conditions was low. Factors associated with agreement on multimorbidity status differed depending on the multimorbidity definition.

All Authors: Lauren E. Griffith, McMaster University; Andrea Gruneir, University of Alberta; Kathryn A. Fisher, School of Nursing; Dilzayn Panjwani, Women's College Hospital; Richard Perez, ICES McMaster; Lindsay Favotto, ICES McMaster; Christopher Patterson, McMaster

ID: 256
Author: Dr. Lauren E. Griffith
Title: The Impact of Chronic Condition List on Prevalence and the Relationship between Multiple Chronic Conditions and Disability, Social Participation and Health Service Use: Data from the Canadian Longitudinal Study on Aging
Type of Abstract: Oral

Objectives: Multimorbidity prevalence estimates vary widely. To create a more consistent definition at least 3 chronic condition (CC) lists have been proposed. We use data from Canadian Longitudinal Study on Aging (CLSA) to explore the impact of different lists on multimorbidity prevalence and the association between multimorbidity and patient-important outcomes.

Approach: We used baseline data from 51,338 community-living women and men aged 45-85 years from across Canada who participated in the CLSA. Multimorbidity was defined using 3 CC lists; 1 proposed by Diederichs, 2 by Fortin. We separated the listed CCs into 3 types: 1) diseases, 2) risk factors and 3) symptoms, as suggested by Willadsen. We examined the impact of the lists and included CC types, on multimorbidity prevalence by age and sex. We then used weighted logistic regression to explore the impact on the magnitude of odds ratio for multimorbidity on disability, social participation restriction and self-rated health.

Results: Among 51,338 participants, the most common disease, risk factor and symptoms were osteoarthritis, hypertension and back pain, respectively. Diederichs list included diseases and one risk factor while Fortin lists included diseases, risk factors and symptoms. Multimorbidity prevalence differed among the lists; ranging from 33.5% having 2+ CCs based for Diederichs list, to 60.6% using Fortin's list. We also compared prevalence estimates for each list restricted to diseases only. The addition of non-disease conditions increased the prevalence substantially. Restricting the Fortin lists to only diseases impacted both prevalence and gender effects. The lists that included the largest number of symptoms consistently increased ORs for disability, social participation restriction, self-rated physical health and healthy aging, but not self-rated mental health. Including risk factors only increased multimorbidity prevalence.

Conclusion: It is important to consider not only the number, but also the type of conditions included in multimorbidity lists. Including risk factors increased only the prevalence of multimorbidity. Inclusion of symptoms, on the other hand, affects prevalence, gender differences, and the association with functional and health-related outcomes important to people.

All Authors: Lauren E. Griffith, McMaster University; Anne Gilsing, McMaster University; Edwin van den Heuvel, Technische Univeriteit Eindhoven; Derelie (Dee) Mangin, McMaster University; Christopher Patterson, McMaster University; Nazmul Sohel, McMaster University;

ID: 201
Author: Ms. Qi Guan
Title: Evaluating the Impact of Delisting High Strength Opioids on Opioid Use in Ontario
Type of Abstract: Oral

Objectives: As part of Ontario's Opioid Strategy, high-strength fentanyl, hydromorphone, and morphine were delisted from the public drug formulary for non-palliative care on January 31, 2017. We assessed the policy's effect on opioid use stratified by prescriber palliative care status, opioid, and strength.

Approach: We conducted a population-based cross-sectional study among individuals who were dispensed long-acting fentanyl, hydromorphone, or morphine through the Ontario Drug Benefit Program between January 1, 2014 and July 31, 2017. We reported the total number of recipients stratified by prescriber type (palliative vs. non-palliative), and the total volume of each drug dispensed stratified by strength, monthly. We used interventional autoregressive integrated moving average models to assess the policy's impact. In a secondary analysis, we compared a cohort of non-palliative care patients receiving high-strength opioids at time of policy implementation to a historical cohort, to assess changes in patterns of access.

Results: We observed a 98% decrease in the number of publicly-funded high-strength opioid recipients between December 2016 and July 2017 (5,930 to 133 recipients) among all prescribers. The policy led to a significant decline in the total volume of all long-acting opioids dispensed; hydromorphone from 20,374,621 to 16,952,097mg (p<0.01), morphine from 40,644,190 to 33,555,480mg (p=0.03), and fentanyl from 9,604,913 to 5,842,405mcg/h (p<0.01). This reduction generally corresponded with an increase in use of low-strength formulations. In our secondary analysis, 5.4% of people in the intervention cohort ceased to receive publicly-funded opioids compared to 0.7% in the historical cohort (p<0.01). Similarly, the intervention cohort was much more likely to obtain high-strength opioids through cash or private insurance compared to the year prior (32.5% vs. 0.2%; p<0.01).

Conclusion: The delisting of high-strength opioid formulations in Ontario has substantially changed the landscape of opioid use in this province, by reducing the number of high-strength opioid recipients and overall volume of publicly-funded fentanyl, morphine and hydromorphone dispensed in Ontario. Changes in access to these opioids occurred among non-palliative care patients.

All Authors: Qi Guan, University of Toronto; Wayne Khuu, Institute for Clinical Evaluative Sciences (ICES); Diana Martins, Institute for Clinical Evaluative Sciences ; Mina Tadrous, St. Michael's Hospital; Tara Gomes, St. Michael's Hospital

ID: 248
Author: Dr. Sara Guilcher
Title: Examination of prescription drug use following a traumatic spinal cord injury using Ontario administrative health data
Type of Abstract: Oral

Objectives: People with spinal cord injury (SCI) have complex needs and are at risk for polypharmacy. Our research program examines factors related to medication management for SCI. The objectives for this study were to examine the prevalence of polypharmacy for traumatic SCI following injury and to determine risk factors.

Approach: We used a retrospective cohort design, drawing from administrative drug, hospitalization and rehabilitation data housed at the Institute for Clinical Evaluative Sciences (ICES), Toronto, Ontario. We examined prescription medications dispensed over a 1 year period following discharge from hospital or inpatient rehabilitation for persons 66+ years with an index traumatic SCI between 2004 and 2014. Polypharmacy was defined as being on 10 or more drug classes. Descriptive and analytical statistics were conducted. Relative risks and 95% confidence limits for factors related to polypharmacy were calculated using a robust Poisson multivariate regression model.

Results: We identified 418 cases of persons with traumatic SCI during the observation window, with 63% of the cohort being male. A total of 364 (87%) of patients were taking at least 5 drug classes and 233 patients (56%) were taking at least 10 drug classes in the year following discharge from care for traumatic SCI. The mean number of drug classes taken was 11 (SD=6). Continuity of care was significantly associated with polypharmacy, with a higher continuity of care reducing the risk of polypharmacy. Common drug classes prescribed were laxatives, opioid analgesics, cholesterol drugs, stomach acid suppressors, stool softeners, and antibiotics.

Conclusion: Polypharmacy is extensive in individuals 66+ years with traumatic SCI. We plan to examine high risk drugs and to expand the analyses to non-traumatic SCI and to those under 66 years of age. We will also interview persons with SCI, clinicians and unpaid caregivers to explore experiences with medication management.

All Authors: Sara Guilcher, University of Toronto; Mary-Ellen Hogan, Canadian Institute for Health Information; Andrew Calzavara, Institute for Clincial Evaluative Sciences; Sander Hitzig, St. John's Rehab, Sunnybrook Research Institute; Tejal Patel, University of Wat

Author: Dr. Emmanuel Guindon
Title: The impact of supplementary prescription drug insurance and cost-sharing on drug use, health services utilization and health in Canada: a systematic review
Type of Abstract: Oral

Objectives: To provide a comprehensive and systematic synthesis of evidence in both the international and Canadian contexts, to understand how current arrangements (such as cost-sharing schemes), and possible future expansion of benefits across Canada, may impact prescription drug use, health service use, and ultimately the health outcomes of Canadians.

Approach: We first conducted a systematic review of reviews. Second, we conducted a systematic review of individual studies that utilized Canadian data.

We draw upon literature from several disciplines – health economics, health services research, health policy, political science – to present comprehensive findings. Since each province has its own unique health system, its own health insurance plan and differing thresholds of eligibility, we emphasize studies using Canadian data, and highlight provincial differences to draw conclusions and policy implications.

Results: First, expanded prescription drug insurance coverage or subsidization of prescription drug cost-sharing through supplementary insurance coverage would likely improve medication adherence and uptake of essential medications (for which there are copays). Second, expanded insurance coverage would likely decrease 'downstream' utilization of acute care services – the effect on total health expenditure is unclear. Third, vulnerable populations (the elderly, poor and chronically ill) would experience a greater impact of expanded coverage in terms of improved health outcomes.

Conclusion: Expanding prescription drug insurance coverage would likely increase drug prescription use and overall health care services. Vulnerable populations would likley benefit the most. The effect on total health expenditure is unclear.

All Authors: Emmanuel Guindon, McMaster University; Arthur Sweetman, McMaster University; Sophiya Garasia, McMaster University; Kimia Khoee, McMaster University; Tooba Fatima, McMaster University; Selene Miller, McMaster University

ID: 370
Author: Ms. Christina Hackett
Title: Co-designing for quality: Creating a user-driven prototype to measure quality in youth mental health services
Type of Abstract: Oral

Objectives: Although high quality mental healthcare for youth is a goal of many health systems, little is known about the dimensions of quality mental healthcare from users' perspectives. We engaged young people, family members and service providers to share experiences and co-design quality dimensions for youth mental healthcare.

Approach: Using Experience-Based Co-Design, we collected qualitative data from young people aged 16-24 with a mental disorder, identified family members, and service providers about their experiences with respect to youth mental health services. Experience data were collected using multiple approaches including interviews, a suite of smartphone and web applications developed by the research team in partnership with WeUsThem - the myEXP apps - and a co-design event, and analyzed to extract touch points. These touch points we used to prioritize and develop user-driven quality indicators.

Results: Young people, family member and service provider reports of service experiences were used to identify aspects of care quality at eight mental health service contact points: Access to mental healthcare; Transfer to/from hospital; Intake into hospital; Services provided; Assessment and treatment; Treatment environment; and Family member involvement in care. In some cases low quality care was harmful to users and their family members. Young people prioritized quality indicators for co-design; all participants supported the resulting quality indicators for youth mental health services.

Conclusion: The EBCD approach facilitated a user-centered process whereby the voices of young people, family members, and service providers could form a collaborative approach to service improvement. EBCD is a promising methodology to implement system-level quality indicators for mental health services for youth.

All Authors: Christina Hackett, McMaster; Gillian Mulvale, McMaster University; Ashleigh Miatello , McMaster University

ID: 198
Author: Dr. Mohammad Hajizadeh
Title: Socioeconomic inequalities in the prevalence of psychological distress and suicidal behaviors among Indigenous peoples living off-reserve in Canada
Type of Abstract: Oral

Objectives: Indigenous peoples in Canada have the highest rates of psychological distress and suicide. Despite extant literature examining factors associated with psychological distress and suicidal behaviors among Indigenous peoples, income-related inequality in psychological distress and suicidal behaviors and factors that explain it among Indigenous peoples living off-reserve has not been assessed.

Approach: Using nationally representative Aboriginal Peoples Survey (APS 2012, n=28,000), we measured income-related inequalities in the prevalence of psychological distress and suicidal behaviors among Indigenous adults (18+) living off-reserve in Canada. The relative and absolute concentration indices (RC and AC) were computed to measure income-related inequalities in distress and suicidal behaviors (suicidal ideation and suicide attempts) for men and women, within the three main Indigenous groups (First Nations, Métis, and Inuit), and in different geographic regions. We also decomposed the RC and AC to identify factors explaining income-related inequalities in distress and suicidal behaviors among Indigenous peoples living off-reserve.

Results: The prevalence rates of mild or more serious distress (Kessler Psychological Distress Scale [K10] scores > 20) and lifetime suicidal ideation and suicide attempts were 6%, 19% and 2%, respectively, among Indigenous peoples in Canada. Women reported higher rates of distress, suicidal ideation and suicide attempts than men. The RC and AC suggested that mild or more serious distress and suicidal behaviors were concentrated among the poor. The extent of income-related inequalities in depression and suicidal behaviors were higher within Métis and Indigenous peoples living in Alberta and British Columbia. Decomposition analyses indicated that income, educational attainment and occupational status, were the most important factors contributing to the concentration of distress and suicidal behaviours among Indigenous peoples with low-income levels.

Conclusion: Policies designed to address various forms of social inequality such as income and education may help reduce psychological distress and suicidal behaviors among Indigenous peoples in Canada. Understanding potentially differing needs across Indigenous groups and geographic regions is a key for targeted interventions.

All Authors: Mohammad Hajizadeh, Dalhousie University; Amy Bombay, Dalhousie University; Yukiko Asada, Dalhousie University

ID: 200
Author: Dr. Mohammad Hajizadeh
Title: Risk factors associated with sexual misconduct in the Canadian Armed Forces: Does it vary by sex and environmental command?
Type of Abstract: Oral

Objectives: Sexual misconduct is a key contributing cause of several serious social and public health problems among military populations. We aimed to determine risk factors associated with the experience of sexual misconduct in the Canadian Armed Forces (CAF).

Approach: Using a newly available unique dataset from the Survey on Sexual Misconduct in the Canadian Armed Forces (SSMCAF, n=43,440 active members), conducted by Statistics Canada in 2016, we aimed to identify the predictors of the three types of sexual misconduct (i.e., sexual assault, inappropriate sexualized behaviour, and discriminatory behaviour on the basis of sex and sexual orientation or gender identity) among the CAF members. We employed logit regression models to identify risk factors of sexual misconduct in the CAF. We also examined whether the predictors associated with the three types of sexual misconduct vary by sex and environmental command.

Results: Our results suggested that probabilities of being the target for sexual assault, or inappropriate sexual behaviour and discriminatory behaviour in the past year among females, was 1.83% (95% confidence interval [CI]=1.67 to 2), 12.79% (95% CI=12.01 to 13.57) and 6.35% (95% CI=6.02 to 6.69), respectively, higher compared to their male counterparts. The probabilities of experiencing one or more of the three types of sexual misconduct in the past year were associated with one or more of the following factors; younger, single, Indigenous, disabled, LGBT (lesbian, gay, bisexual or transgender), highly educated, or junior non-commissioned members of the CAF. Our findings were generally consistent when we stratified our analysis by sex and environmental command.

Conclusion: These results suggest that sexual misconduct is a problem within the CAF. There is a need for change within the CAF to prevent and reduce sexual misconduct among at-risk members including those who are female, young, single, Indigenous, disabled, LGBT, highly educated or junior non-commissioned members.

All Authors: Mohammad Hajizadeh, Dalhousie University; Alice Aiken, Dalhousie University; Chelsea Cox, Schulich School of Law, Dalhousie University

ID: 143
Author: Dr. Clayon Hamilton
Title: Development of a questionnaire to assess the quality of patient-researcher partnerships
Type of Abstract: Oral

Objectives: Engaging patients as partners in research projects has grown in Canada over the last decade, but no tool is available to measure success. This study aimed to identify items for a scale to measure the degree of meaningful patient engagement in research.

Approach: We generated 120 items across the eight domains of our published empirically-based Patient Engagement In Research Framework. A 3-round Delphi process, involving online questionnaires and a teleconference discussion, was then undertaken. Eligible panelists were patients or informal caregivers 18 years or older who engaged as research partners in Canada within the last three years and had internet access. Panelists rated the level of importance of each item. Our decision to retain, revise, or remove each item was guided by three criteria: a median rating of >3.25, rating of >3 by >70% of panelists, and comments on its wording and importance.

Results: We recruited 12 participants (10 women; 11 Caucasians and 1 Asian), from Alberta (n=1), British Columbia (n=9), and Ontario (n=2). They represented a variety of diseases, health-related conditions, and use of healthcare services such as rheumatoid arthritis, inflammatory bowel syndrome, multiple sclerosis, diabetes, stroke, neurodevelopmental disabilities, obesity, and nutrition intervention implementation. Highest formal education varied from high school diploma (n=1) to master's degree (n=2). They were aged between 18 and 85 years old. All panelists completed the questionnaires, except for one person in round two. Forty-three items were retained across the eight domains: procedural requirements (n=16), convenience (n=4), contributions (n=4), support (n=5), team interaction (n=3), research environment (n=3), feel valued (n=4), and benefits (n=4). These items formed the initial Patient Engagement In Research Scale (PEIRS).

Conclusion: This project is the first to develop a tool for evaluating meaningful engagement of patients in research projects. Importantly, the Delphi process involved a synergy of patient partners who were either participants or members of our research team to ensure the PEIRS is grounded in a patient perspective.

All Authors: Linda Li, Arthritis Research Centre of Canada ; Alison Hoens, BC SUPPORT Unit; Kelly English, Arthritis Research Canada; Shanon McQuitty, Arthritis Research Canada; Annette McKinnon, Arthritis Research Canada; Tara Azimi, Arthritis Research Canada; Clay

ID: 422
Author: Alexandra Harris
Title: Articulating the Strategic Value of Knowledge Resources: Results of a Case Study Exploring Nursing Intellectual Capital and Hospital Performance
Type of Abstract: Oral

Objectives: The growing need to identify and employ large stores of information and professional expertise for healthcare delivery necessitates a knowledge-based approach to resource management. Therefore, we study sought to identify elements of nursing intellectual capital (NIC), the conditions that help to develop it, and whether NIC relates to hospital performance.

Approach: We conducted an exploratory case study at an academic hospital, whereby two clinical programs, differentiable by performance, were selected using balanced scorecard data and served as embedded units of analysis. Organizational archival records and sixty administrative documents formed the basis of the case description. We conducted twenty-one key informant interviews with administrators (n=13) and clinical staff (n=8), reflecting nursing and non-nursing perspectives at both the program and organizational levels. Participant data was qualitatively analyzed using NVivo and the Framework Method approach to thematic analysis, facilitating within and cross-unit comparison. The knowledge-based view of the firm served as a theoretical lens.

Results: Thematic results revealed a range of knowledge resources at the individual and collective levels, manifesting as implicit and explicit in nature. Individual types of NIC included nurses' academic and experiential knowledge, as well as sources of knowledge, such as educators. Collective forms of NIC encompassed clinical decision-making tools, structures that support learning, and knowledge embedded in nurse relationships. We also identified general (non-nursing) forms of intellectual capital, including individual employees' knowledge, repositories of organizational knowledge, and structures supporting knowledge exchange. Seven contextual factors related to the development of NIC emerged: infrastructure, leadership, presence of nursing in the organization, financial support, organizational culture, workload and time, and individual-level factors. Participant responses regarding NIC and performance were varied, reflecting challenges in linking the two concepts.

Conclusion: This is the first study exploring the nature and potential influence of NIC on hospital performance. Findings provide insight into how knowledge resources can be measured and developed. Linkages between NIC and performance were tenuous; however, results inform future research on the strategic significance of (nursing) intellectual capital.

All Authors: Alexandra Harris, University of Toronto; Linda McGillis Hall, Lawrence S. Bloomberg Faculty of Nursing, University of Toronto; Whitney Berta, University of Toronto; Adalsteinn Brown, Institute of Health Policy, Management and Evaluation, University of To

ID: 443
Author: Robin Hayeems
Title: Development and validation of the multi-dimensional index of clinical utility: a novel outcome measure for genomic medicine
Type of Abstract: Oral

Objectives: Clinical utility is a term used to describe the value of genetic tests, but lacks a specific definition and measurement strategy. While laboratory performance of genetic tests has improved significantly, policymakers are seeking evidence of clinical value. This study aims to define and validate a novel measure of clinical utility.

Approach: A literature-derived index of items reflecting on the concept of clinical utility was generated. Semi-structured interviews were conducted with clinicians who routinely use genetic testing to refine the concept of clinical utility and feedback on the structure, understandability, and importance of each item. Using qualitative analysis and member checking, items were revised and grouped into core domains. Using a 2-step Delphi process, clinicians ranked the importance of items and domains to refine index content and scoring.

Results: The literature review identified 26 plausible items for the preliminary index. Interviews were conducted with 35 clinicians from 9 specialties (e.g. clinical genetics, cardiology, nephrology). Providers defined clinical utility as a multi-dimensional concept impacting on diagnostic thinking, patient management, family-centred care, and system efficiency. With the exception of oncology, there was general agreement on the level of importance of the items presented across specialty groups. Less important or redundant items were removed from the index and ambiguously worded items were revised. The 20 remaining items were organized into three emergent conceptual dimensions (i.e. role in diagnosis and prediction, role in patient management, family and psychosocial impact). Qualitative and Delphi-survey findings will be presented, along with a novel, empirically-generated index of clinical utility.

Conclusion: The development of a tool to measure clinical utility in genomics is an essential prerequisite to assess clinical utility of rapidly evolving genetic testing technologies on the cusp of clinical translation. Evidence of this sort will inform reimbursement and implementation decisions related to this complex technology.

All Authors: Robin Hayeems, ; Stephanie Luca, The Hospital for Sick Children; Ayushi Bhatt, The Hospital for Sick Children; Eleanor Pullenayegum, The Hospital for Sick Children; M. Stephen Meyn, The Hospital for Sick Children; Wendy Ungar, The Hospital for Sick Childr

ID: 502
Author: Dr. Lindsay Hedden
Title: Assessing Physician Retirement using Licensure Data: Are Policy Makers Overestimating the Size of the Physician Workforce
Type of Abstract: Oral

Objectives: Policy makers rely on data from licensing bodies to identify when physicians leave practice (retire). We sought to examine the concordance between retirement defined using licensure data and billings (activity) at a variety of thresholds, and comment on the strengths, limitations, and policy implications of these approaches.

Approach: We used population-based, administrative data -- registries, billing records (all fee-for-service encounters and non fee-for-service payments) -- for all BC physicians age 50+ for 2005-12. We defined retirement using three approaches: status change from "active" to "retired/de-enrolled" in the BC College of Physicians and Surgeons registry; falling below and maintaining less than $10,000/$20,000 in annual billings; and a complete cessation of billing with no subsequent resumption. For each definition, we examined the number of retirement events and average age of retirement observed within the study period. We produced Phi-Coefficients to assess concordance between the retirement definitions.

Results: The study cohort included 4503 physicians who billed in at least one year (2005/6-2011/12). Concordance between activity- and licensure-based definitions of retirement was generally poor (Phi-coefficient=0.64). 1549 (34.4%) and 1413 (31.4%) physicians fell below and maintained less than $20,000 and $10,000 in billings respectively. While 1394 (29.7%) stopped billing entirely, only 832 (18.5%) surrendered their College licenses. The average age of retirement was almost 1.5 years later (66.9 vs. 65.5) according to licensure compared with billing data. Furthermore, we identified 970 (21.5%) and 727 (16.1%) physicians who ceased billing activity for more than six- and 12-months respectively while still holding full, active licenses. 30% of physicians who did surrender their full licenses moved to a temporary license before permanently de-enrolling.

Conclusion: Licensure-based definitions of retirement significantly underestimate the number of physicians no longer delivering care and suggest that physicians are retiring at an older average age than they really are. Thus, relying on these data to estimate the size of the active workforce may exacerbate downstream shortages in some specialties.

All Authors: Lindsay Hedden, Simon Fraser University; Ruth Lavergne, Simon Fraser University; Kimberlyn McGrail, School of Population and Public Health, University of British Columbia; Centre for Health Services and Policy Research, University of British Columbia ; Mi

ID: 322
Author: Dr. Jennifer Hensel
Title: Pragmatic randomized controlled trial of an on-line mental health platform among individuals seeking specialized mental health services in Ontario
Type of Abstract: Oral

Objectives: To determine if access to an anonymous on-line multi-component, moderated mental health platform with peer support, the Big White Wall (BWW), increases mental health recovery over 3 months among individuals seeking specialized mental health services. Additionally, we evaluated if extended access to the platform was beneficial among interested study participants.

Approach: A multi-site, pragmatic randomized controlled trial with a nested extension study. 812 individuals with a range of mental health needs were recruited from outpatient programs affiliated with three participating hospitals in Ontario. Participants were randomized 2:1 to receive immediate access to the BWW or delayed access after a 3-month waiting period. At 3 months, those who were interested were re-randomized 1:1 to another 3 months of the intervention or discontinuation. The primary outcome was mental health recovery assessed with the Recovery Assessment Scale-revised (RAS-r). Secondary outcomes were symptoms of depression and anxiety, quality of life, and community integration.

Results: A small, statistically significant increase in RAS-r score was found for intervention participants relative to control (5.28 points, 95% CI 3.29 to 7.28), as well as statistically significant decreases in measures of depression and anxiety, but not quality of life or community integration. 112 participants (46.7% of those eligible based on completion of the 3-month outcome assessment) opted into the nested extension study. There was no significant benefit of extended access to the intervention, although power in this nested study was limited. Utilization of the platform was highly variable, with a small proportion of users accounting for most of the activity. Only 58% of participants logged on 2 or more times.

Conclusion: The mental health platform conferred some benefit for mental health recovery and symptom reduction after 3 months, but not beyond. The lack of ongoing engagement among participants has implications for how to select and engage individuals who may benefit, and for delivery and funding models for similar interventions in Ontario.

All Authors: Jennifer Hensel, Women's College Hospital Institute for Health Systems Solutions and Virtual Care; Jay Shaw, Women's College Hospital; Noah Ivers, Women's College Hospital; Laura Desveaux, Women's College Hospital; Simone Vigod, Women's College Hospital;

ID: 298
Author: Ms. Julia Ho
Title: "It's a fight to get anything you need" — Accessing care in the community from the perspectives of people with multimorbidity
Type of Abstract: Oral

Objectives: There is a growing interest in redesigning health-care systems to better manage the increasing numbers of people with multimorbidity. The purpose of this study was to understand the challenges patients with multimorbidity face in accessing care in the community, and the implications for patients and their families.

Approach: A secondary analysis of qualitative data was conducted on semi-structured interviews with 116 patients who were receiving care in an urban rehabilitation facility in 2011. Exploratory interpretive analysis was used to identify themes about access to care.

Results: Challenges occurred at two levels: at the health system level and at the individual (patient) level. Issues at the health system level fell into two broad categories: availability of services (failing to qualify, coping with wait times, struggling with scarcity and negotiating the location of care) and service delivery (unreliable care, unmet needs, incongruent care and inflexible care). Challenges at the patient level fell into the themes of logistics of accessing care and financial strain. Patients interacted and responded to these challenges by: managing the system, making personal sacrifices, substituting with informal care, and resigning to system constraints.

Conclusion: Identifying the barriers patients encounter and the lengths they go to in order to access care highlights areas where policy initiatives can focus to develop appropriate and supportive services that are more person and family-centred.

All Authors: Julia Ho, University of Toronto; Kerry Kuluski, Sinai Health System; Jennifer Im, University of Toronto

ID: 232
Author: Mr. Simon Hollands
Title: Pharmaceutical Promotion, Shared Patient Networks and Second Generation Antipsychotic Prescribing
Type of Abstract: Oral

Objectives: To examine the association between pharmaceutical manufacturer sponsored promotional payments for Second Generation Antipsychotics (SGA) and the likelihood of physicians prescribing them, considering both physician level and network level effects.

Approach: Cross-sectional exploratory analysis linking publicly available prescriber data, pharmaceutical promotion data, and shared patient networks, in the United States set in 2015. We use Care set labs root NPI graph to create shared patient networks for the population of physicians billing to Medicare. We link these networks to individual prescribing and pharmaceutical promotion data using National Provider Identifiers (NPI). Local shared patient networks are identified using the Louvain community detection algorithm. We use hierarchical binomial regressions to examine effects of promotion on prescribing at the physician and network level.

Results: Physicians who took 4+ payments for Abilify in 2015 had 13% higher odds of prescribing it than those with no payments, after adjusting for physician level variables. At the network level the odds of a physician prescribing Abilify were 44% higher for a physician in a network that was in the highest quartile of receiving Abilify payments compared to one in the lowest quartile.

Conclusion: Until now, research informing policy aimed at mitigating conflicts of interest related to pharmaceutical promotional payments and prescribing has only considered individual level effects. This work shows additional effects at the physician network level that should also be considered when forming and policy.

All Authors: Simon Hollands, Pardee RAND Graduate School

ID: 186
Author: Dr. Paul Holyoke
Title: Why some patients who don't need hospitalization can't leave: A case study of reviews in 6 Canadian hospitals
Type of Abstract: Oral

Objectives: In Canada, many patients remain in hospital well after they no longer require hospital-based care. Reviews and activities have been undertaken over the past decade within hospitals, but the problem remains. What can be learned about this problem by taking a home and community perspective rather than a hospital perspective?

Approach: An instrumental, collective case study approach was used, examining in-depth reviews by home and community experts of 6 acute care organizations' processes and structures, and their patients' profiles, that led to the patients needing an Alternate Level of Care (ALC) but for whom this was the most difficult to achieve. The study included an analysis of final review reports and key informant interviews with experts involved in the reviews to identify commonalities and differences across the cases to generate general strategies for reducing the incidence of patients requiring an ALC.

Results: Across the cases, 393 patients needing an ALC were assessed, most of whom were age 70+. Although the majority of patients had a planned discharge destination of long-term care (LTC), the reviewers found that about half could have been cared for at home, either as an alternative to LTC or as an interim measure. This case study led to four general observations about the underlying causes for the ALC issues across the six cases: the insufficiency of home and community supports before hospitalization; the routine underestimation by hospital staff of these patients' potential for independence; the deconditioning of patients while in hospital, jeopardizing their capacity for independence; and hospital staff's lack of understanding of home care.

Conclusion: Many patients requiring ALC could have left hospital earlier, returning home with appropriate supports, rather than to LTC. The observations and recommendations provide an opportunity to bring about coordinated changes to beliefs, attitudes, processes and structures so that patients receive care in the most appropriate, least expensive setting.

All Authors: Paul Holyoke, Saint Elizabeth Health Care

ID: 63
Autheur: Mrs. Anne Hudon
Titre: Influence des politiques organisationnelles sur les soins de physiothérapie pour les travailleurs blessés
Type d'abstrait: Oral

Objectifs: Au Canada, les physiothérapeutes sont des professionnels clés dans les soins des travailleurs blessés supportés par une commission d'indemnisation du travail. L'objectif de cette étude était d'explorer l'influence des politiques des commissions d'indemnisation et des cliniques de physiothérapie sur les soins offerts aux travailleurs blessés indemnisés, dans trois provinces canadiennes.

Approche: Nous avons employé un devis qualitatif appelé « description interprétative » pour réaliser la recherche. Nous avons conduit des entrevues individuelles d'une durée moyenne de 60 à 90 minutes auprès de 30 physiothérapeutes et de 10 leaders et administrateurs œuvrant au sein de groupes professionnels (ex. ordre professionnel) ou de commissions d'indemnisation du travail, dans trois provinces canadiennes (Colombie-Britannique, Ontario, Québec). Nous avons ensuite analysé chacune des transcriptions en suivant un processus inductif et de comparaison constante entre les données. Nous avons regroupé les codes en catégories et avons ensuite dégagé les grands thèmes illustrés par les récits des participants.

Résultats: L'analyse des récits des participants révèle que les soins de physiothérapie prodigués aux travailleurs blessés sont fortement modulés par les politiques établies par les commissions provinciales d'indemnisation et par les cliniques de physiothérapie elles-mêmes. Les politiques décrites par les participants ont des influences parfois positives, mais plus souvent néfastes sur les soins de physiothérapie offerts aux travailleurs blessés. Parmi les politiques identifiées on retrouve celles qui touchent : les tarifs de remboursement des soins, les modes de communication entre les intervenants, les exigences cliniques liées au traitements, la rémunération des physiothérapeutes et la durée pré-déterminée de certains programmes de traitements. Ces politiques administratives et cliniques sont aussi sources d'enjeux éthiques pour certains participants. Des pistes de solutions intéressantes ont également été suggérées par les participants.

Conclusion: Malgré les données probantes enseignées et les formations offertes aux physiothérapeutes, cette étude démontre de façon éloquente que les soins de physiothérapie sont largement influencés par les politiques organisationnelle des agents payeurs (commissions d'indemnisation) et des établissements de santé (cliniques de physiothérapie) plutôt que par des considérations cliniques individuelles.

All Authors: Anne Hudon, University of Waterloo ; Matthew Hunt, McGill University; Debbie Feldman, Université de Montréal

ID: 349
Author: Dr. Serena Humphries
Title: Innovations in Health Service Delivery - Critical Success Factors for Implementing Evidence Based Health Protection Programs in Primary Care
Type of Abstract: Oral

Objectives: Primary Care is the ideal setting to deliver evidence-based health protection programs targeting patients at risk of developing cancer and chronic diseases. Understanding the barriers and facilitators to program implementation in diverse primary care settings is essential to enable access to effective health protection programming for patients at risk.

Approach: Lifestyle interventions delivered by inter-disciplinary teams in primary care are effective for improving health outcomes. A mixed methods approach is used to evaluate the implementation of an evidence-based lifestyle intervention in 8 diverse primary care settings. Qualitative and quantitative research methods used include participant observation, documentation review, interviews, and surveys.

Results: The primary care environment is rich with diversity in the organization, funding and delivery of health services. In this study, 8 primary care settings in Alberta implemented an evidence-based lifestyle intervention delivered by a team of family physicians, Registered Dietitians and Exercise Specialists. The diverse settings included Primary Care Networks as well as individual health home clinics and included practices servicing the general population as well as specific sub-sets of the population. The organizational structure influenced the approach required to successfully implement and manage the lifestyle intervention. The funding model also affected the program implementation. Critical success factors include: organizational leadership and commitment; adaptation of program to local context; funding and organizational stability; program champions; and ongoing access to an

Conclusion: The implementation of innovative health service delivery models in primary care is feasible. An understanding of the critical success factors for the implementation of lifestyle interventions in diverse primary care settings will support the uptake of evidence-based programs. Tools and resources that address the critical success factors are

All Authors: Serena Humphries, University of Alberta; Doug Klein , Department of Family Medicine, University of Alberta.

ID: 498
Author: Ms. Selena Hussain
Title: Lung Cancer-Related Clinical and Economic impacts of Achieving a 5% Smoking Prevalence by 2035
Type of Abstract: Oral

Objectives: Smoking is responsible for approximately 30% of all cancer-related deaths and nearly 85% of lung cancer cases. Canada has set an ambitious target to reduce smoking prevalence from 18% to 5% by 2035. OncoSim was used to show the impact of achieving this goal on lung cancer outcomes and costs.

Approach: OncoSim-Lung (version 2.5) (developed by the Canadian Partnership Against Cancer and Statistics Canada) is a microsimulation model that incorporates Canadian demographics, risk factors, registry data, resource utilization and other data to project clinical and economic impacts of cancer control measures. Smoking cessation parameters were modified to reduce the current smoking prevalence (17.9%) over time to 5% in 2035. Impacts were compared to those in a reference scenario, which maintained the current prevalence rate. Outputs of interest included lung cancer incidence, mortality, treatment costs, and quality-adjusted life-years (QALYs). Costs and QALYs were not discounted. Costs are reported in 2016 Canadian dollars.

Results: Achieving a 5% smoking rate by 2035 would result in a 2017-2035 cumulative total of 31,000 fewer lung cancer cases, 21,000 fewer lung cancer-related deaths, and 457,000 additional QALYs compared to projections based on current smoking trends. When stratified by sex, there would be 15,600 and 15,700 fewer lung cancer diagnoses and 11,000 and 10,000 fewer lung cancer-related deaths for males and females respectively. Furthermore, treatment-related costs would be reduced by $680 million dollars. On average there would be 4,500 fewer lung cancer cases, 3,500 fewer deaths, and $35 million in cost savings annually. If a 5% smoking rate is sustained until 2050, then there would be a 15% reduction in lung cancer cases and a 13% reduction in deaths from 2017-2050.

Conclusion: Based on the OncoSim-Lung model, reducing Canada's smoking prevalence to 5% by 2035 would result in a significant reduction in lung cancer cases, deaths and treatment costs. Averted treatment costs could be used to offset costs of aggressive smoking prevention and cessation programs or be redirected to other healthcare services.

All Authors: Selena Hussain, Canadian Partnership Against Cancer; Natalie Fitzgerald, Canadian Partnership Against Cancer; Cindy Gauvreau, Canadian Partnership Against Cancer; Saima Memon, ; William Flanagan, Statistics Canada; William Evans, McMaster University; John

ID: 433
Author: Ms. Marie-Claire Ishimo
Title: Success factors and challenges in implementing, scaling up and sustaining health innovations in a changing context: Case of Tunisia
Type of Abstract: Oral

Objectives: Major efforts are invested in health innovations, which tend to be very successful at the local level but fail to be scaled up, and very few are scaled up sustainably. This study seeks to identify key factors that contribute to the success/failure in implementing, scaling-up and sustaining of health innovations.

Approach: We used a synthetic qualitative research strategy with a multiple case study design with several embedded levels of analysis. The innovations are: 1) the mobile outreach services for family planning, 2) the development program of health districts for primary health care, 3) the hospital management reform, and 4) the optimization of the vaccine supply chain. Data was collected by interviews, observations, and review of field notes and official documents. In total, 40 interviews (45min-1hour) were conducted, followed by a 10-day observation period for each innovation. Interviews were analysed using thematic analysis in QDA-Miner software (4.1.27 version).

Results: The study observed different levels of implementation, scaling-up and sustainability (in terms of structures, processes and outcomes) and uncovered successes (e.g. relevance and compatibility of innovation within the local context, historical and legal context, political engagement, availability of resources, technical support, etc.) and challenges (changing context, bureaucracy, low operational management, insufficient resources, low institutional capacity, low level of skills, etc.) when assessing the implementation, scale-up and sustainability of these innovations. And, also the study highlighted the nature (contextual, organizational, individual and innovation characteristics) and the level of their influence (national, regional and local).

Conclusion: The study highlights the importance of individuals and the adaptability to changing contexts in implementing, scaling up and sustaining health innovations in resource-limited settings. It showed that an innovation can be effective at the local level and scaled-up but decline over time.

All Authors: Marie-Claire Ishimo, School of Public Health & Public Health Research Institute - University of Montreal ; François Champagne, Université de Montréal; Lambert Farand, University of Montreal

ID: 596
Author: Dr. Liisa Jaakkimainen
Title: Using family physician Electronic Medical Record data to measure the pathways of cancer care
Type of Abstract: Oral

Objectives: To determine the feasibility of using family physician (FP) electronic medical record (EMR) data to identify care pathways for lung cancer and breast cancer patients from the description of symptoms, to the initiation of investigations, referrals to specialty care and the receipt of specific treatments (surgery, chemotherapy, radiation treatment).

Approach: Cancer Care Ontario has identified gaps in care along the disease pathway for specific cancers. However, there currently is no real world data to identify the wait times along these cancer pathways. Data from the Electronic Medical Record Administrative data Linked Database (EMRALD) held at the Institute for Clinical Evaluative Sciences (ICES) was used to identify a cohort of lung cancer and breast cancer patients. Data abstractors examined the FP EMR notes of these patients to identify pre-diagnostic symptoms, pre-diagnostic radiological test (chest x-rays, mammograms, CT scans results), biopsy results, oncology and surgical specialist referrals and post-diagnostic specialist consultations.

Results: To date, abstractors have reviewed the FP EMR notes for 160 lung cancer patients. We anticipate the completion of 2000 breast cancer and an additional 550 lung cancer patient records by the end of March 2018. For the 160 lung cancer patients reviewed so far, pre-diagnostic index test results were identified in 88.5% of EMR notes (66.7% based on abnormal chest x-rays and 60% based on abnormal CT scans). Pre-diagnostic symptoms were identified in 62.1% of FP EMR notes and 81.6% had post-diagnostic consultation notes. Wait time from abnormal test results to seeing a consultant physician were less than 3 weeks for all patients.

Conclusion: We were able to use FP EMR notes linked to administrative data to identify care organized received by patients prior to their cancer diagnosis. This information can be used to identify care gaps and measure wait times in receiving cancer care from a patient's perspective.

All Authors: Liisa Jaakkimainen, ICES; Lisa DelGiudice, Sunnybrook Academic Family Health Team; Karen Tu, University of Toronto; Bogdan Pinzaru, Institute for Clinical Evaluative Sciences

Objectives: The primary objective was to explore the aberrant drug seeking behaviors shared in social media by prescription drug users to obtain their drugs of choice from physicians. The secondary objective was to provide solutions to prevent such behaviors and reduce prescription medication abuse and morbidity and mortality among users.

Approach: We searched five popular search engines Yahoo, Google, Bing, MSN and AOL to find the most common questions and responses shared online for obtaining opioids and stimulants, two major groups of prescription medications commonly used in North America. For each search engine we reviewed the first 50 pages, which provided 500 URLs until data saturation occurred. We included websites, blogs, online chats, forums, or any other communication records that provided such information. Summative content analysis was used and themes and subthemes were identified for each medication of interest. At the end five themes were emerged from data.

Results: Aberrant behaviors fall under 5 main themes: Patient, prescriber, illness, treatment and pharmacy factors. Individuals who seek prescription medications advise several approaches such as: changing their doctor, finding an easy prescriber, crying and expressing disparity and frustration, finding a prescriber in a quiet neighborhood, threatening for lawsuits, avoiding direct request for the medications of their choice, faking their symptoms, and over-reporting symptoms or under reporting the benefits of their existing treatment. They also advise each other to find a pharmacy that asks for no prescription, finding online pharmacies, referring to emergency rooms, knowing the symptoms of illness in advance of their visit and showing illness behavior during the clinic visits.

Conclusion: A variety of aberrant behaviors are used by prescription medication users to obtain their medications of choice. Engagement of patients, prescribers and pharmacies is needed to increase the knowledge of risks to patients and to raise awareness among prescribers and pharmacies to prevent prescription medication abuse in our communities.

All Authors: Siavash Jafari, Vancouver Coastal Health; Pooria Ghadiri, UBC; Ashkan Nasr, California South ; Souzan Baharlou, PHSA; Nazila Hassanabadi, Mental Health For All Group

ID: 449
Author: Dr. Mengzhu Jiang
Title: Comparing physician palliative care service delivery across end-of-life trajectories
Type of Abstract: Oral

Objectives: To compare physician palliative care service delivery models (palliative care specialist only, generalist only, or consultative care) and access to physician home visits in the last year of life across four end-of-life trajectories: terminal illness (TI), organ failure (OF), frailty (F), and sudden death (SD).

Approach: We identified Ontario decedents, aged 19 and above, who died between April 1, 2010, and March 31, 2015. Cause of death was obtained from the Vital Statistics database and categorized based on the leading cause. Palliative encounters, location of care, and physician specialty were obtained from billing data and the physician database at ICES. Palliative specialists were those who had more than 10% of their billings from palliative service codes. We used logistic regression, with any physician home visit as the outcome, to examine its relationship with end-of-life trajectories and physician service delivery models, while controlling for socio-demographics and comorbidities.

Results: We identified a total of 236,545 decedents (TI: 30.9%, OF: 40.2%, F: 19.7%, SD: 6.2%, and other: 3%). Overall, 53.8% of patients had no physician palliative care, 20.1% for TI, and approximately 67% for both OF and F. Among those who received palliative care, 35.8% with TI received consultative care, compared to 4-5% with F and OF, respectively. Among all patients with any palliative care encounter, 16% had physician home visits, 31.8% for TI, 9.7% for OF, and 8.6% for F. Logistic regression showed that, compared to F, the adjusted OR for TI was 1.83 (95%CI: 1.75-1.91) for receipt of home visits, and the OR for consultative care compared to exclusively palliative specialist care was 2.15 (95%CI: 2.08-2.23).

Conclusion: Overall, there is poor access to physician palliative care in the last year of life. Fewer patients with OF and F receive any palliative care, consultative care, or home visit compared to patients with TI. In addition, the consultative care model is associated with increased odds of physician home visit.

All Authors: Mengzhu Jiang, University of Toronto; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Glenys Smith, ICES uOttawa; Amy Hsu, Bruyère Research Institute; Catherine Brown, University of Ottawa; Hsien Seow, McMaster Universi

ID: 65
Author: Mr. Aaron Jones
Title: Comparing the performance of several machine learning and conventional statistical methods for prediction of hospital and emergency department utilization among community-dwelling older adults
Type of Abstract: Oral

Objectives: The objective of this study was to compare the performance of conventional statistical approaches to methods from the machine learning literature for predicting emergency department (ED) and hospital utilization outcomes among patients receiving community-based care.

Approach: This study utilized a population-based, retrospective cohort of adult home care patients in Ontario receiving a comprehensive clinical assessment from 2014-2016. Using elements from the clinical assessment as predictors, logistic regression, neural networks, random forests, and gradient tree boosting were employed to predict the probability of three outcomes: ED visit from an injurious fall, unplanned hospitalization, and number of ED visits (0,1, or 2+) within 6 months of assessment. Predictive performance was measured with the logarithmic score, brier score and AUC. Clinical importance of the differences was judged by comparing diagnostic test measures at multiple thresholds.

Results: Data from 58,410 patients assessed in 2014 and 2015 in were used to train and validate predictive models that were tested on the 29,935 patients assessed in 2016. Gradient tree boosting achieved the best performance on all three outcomes. Neural networks also outperformed the conventional statistical approaches across the outcomes. Performance gains over logistic regression were small however, with gradient tree boosting yielding an average AUC only 0.012 higher than logistic regression. Gains in diagnostic test measures were similarly small, with sensitivity increasing by an average of 1% when specificity was fixed.

Conclusion: Gradient tree boosting and neural networks provided slightly better performance than standard statistical methods at predicting three ED and hospitalization utilization outcomes among home care patients in Ontario. However, the clinical relevance of the predictive increases was negligible.

All Authors: Aaron Jones, McMaster University; Paul McNicholas, McMaster University; Andrew Costa, McMaster University

ID: 419
Author: Ms. Tanya Karyakina
Title: An innovative model of navigation services to improve Access to Resources in the Community (ARC) – patient profile, resource referrals, and social barriers to access
Type of Abstract: Oral

Objectives: We will describe 1) the socio-demographic characteristics of patients referred to a non-clinical navigator for support as part of the Access to Resources in the Community (ARC) feasibility study 2) the type of community resources recommended to patients and 3) the access barriers reported to the Navigator

Approach: The ARC feasibility study was conducted in four primary care practices. Navigators are non-clinical individuals attached to the primary care practices and trained to support patients with social barriers to access community health enabling resources. The community resource(s) identified during the patients' visit with their primary care provider were documented on a referral form which was sent to the ARC navigator for follow up. Baseline surveys were used to collect sociodemographic characteristics of patients. The barriers to access were identified by the patients and recorded in a navigator-patient encounter log.

Results: 57 patients have met with the Navigator since August 2017.

The majority of patients were female (68%), and between the ages of 30-65; 25% of patients were over 65 years of age; 21% were new Canadians; more than a third (34%) had only completed high school. Nearly a third (28%) of patients reported an income <$25,000. Nearly a third were retired (29%); 43% were unemployed and 34% reported living alone.

The most common resources referred by physicians included mental health/addiction services, healthy lifestyle support, and financial/employment assistance. About a third (34%) of patients required three or more resources.

The most common barriers reported by patients included a lack of awareness of available resources, financial issues, and transportation. Nearly half (48%) reported three or more barriers.

Conclusion: Data on patient characteristics, the resources they are referred to, and the barriers they experience will allow us to define the population that stands to benefit from a non-clinical Navigator intervention and will inform the development of the Patient Navigator model to suit the needs of this particular patient population.

All Authors: Tanya Karyakina, Bruyère Research Institute ; Alain Gauthier, ; François Chiocchio, Professor, Organisational Behaviour and Human Resource Management; Manon Lemonde, University of Ontario Institute of Technology; Denis Prud'homme, Institut de recherche

ID: 474
Author: Dr. Monika Kastner
Title: Evaluation of a conceptual framework (KaT) for creating KT tools and products: A Delphi study
Type of Abstract: Oral

Objectives: Not all KT interventions (those that facilitate the uptake of evidence and aimed at improving care) are developed and implemented rigorously, nor created for sustained use, and their impact is variable. In response, we developed a conceptual framework for rigorously creating KT tools and products: Knowledge-activated Tools (KaT) framework.

Approach: The conceptual KaT framework was informed by a literature review, followed by a Delphi study with a panel of KT science and practice experts. The objectives of the Delphi study were to reach consensus on the framework's organization and structure, and to ensure that it was understandable, comprehensive and useful to guide a wide range of knowledge users (patients, clinicians, researchers, policy makers) in creating and implementing KT tools. Consensus to include a KaT framework item was defined as a score of at least 5 of 7 by at least 80% of Delphi participants. We performed quantitative and qualitative analyses.

Results: Our Delphi study comprised three rounds: 1) online-survey (n = 35); 2): live discussions on items that did not reach consensus (n = 19); and 3): finalizing the KaT framework by re-rating any remaining non-consensus items (n = 26). KaT was iteratively changed after each round and includes the following components: a) Explore (users identify their KT purpose, scope, and existing knowledge base); b) 3 broad domains identified as important in KT tools creation (Develop, Implement, and Disseminate); c) 3 Impact Drivers identified as important to consider across any or all of the 3 domains (integrated KT, Sustainability, Scalability); d) Evaluation; and e) an Action plan, which represents a customized output summarizing the user's inputs according to their identified KT purpose and applicable KaT components

Conclusion: 35 KT experts informed the final KaT framework, which represents what is needed to create rigorous KT tools with the best potential for impact. Once we survey a wide range of knowledge users on the potential usefulness of KaT, we will translate the framework into a user-responsive, interactive, online platform.

All Authors: Monika Kastner, North York General Hospital; Julie Makarski, NYGH; Leigh Hayden, North York General Hospital; Sharon Straus, St. Michael's Hospital; Yonda Lai, St. Michael's Hospital; Victoria Treister, Li Ka Shing Knowledge Institute of St. Michael's Hos

Author: Tarun Katapally
Title: Do school physical activity policies and programs have a role in decreasing multiple screen time behaviours among youth?
Type of Abstract: Oral

Objectives: Screen-time in youth has been associated with a wide range of poor health outcomes. This study aims to understand the association between physical activity (PA) policies and programs embedded into the curricula of 89 schools across two provinces in Canada and multiple screen time behaviours.

Approach: As part of COMPASS, a longitudinal cohort study based in Ontario and Alberta, a total of 44,861 youth aged between 13 and 18 years completed validated questionnaires for health behaviours and outcomes data. A policies and practices questionnaire was administered to school administrators to capture school PA policies and programs . Built environment data surrounding each school, and weather data were also obtained from Environment Canada. Five random-intercept linear regression models were developed for total screen-time, television-time, video game-time, Internet surfing, and time spent in communication-based screen-time behaviours.

Results: Participation in intramural programs was associated with significantly less time playing video games and total screen-time among Ontario males. Similarly, participation in before-school, lunch hour, or after-school intramural programs was associated with significantly less time watching television and total screen-time among Alberta youth. Males in Ontario who participated in varsity sports reported significantly less time playing video games and surfing the Internet. Females in Ontario who participated in varsity sports reported significantly less time watching television, playing video games, Internet surfing, and accumulating total screen-time. Alberta youth who participated in varsity sports reported significantly less time playing video games.

Conclusion: School PA policies and programs are positively associated with lower screen time among youth, after controlling for varying weather patterns across two geographically and climatically distinct provinces. Thus school PA policies and programs play an important role in reducing screen time behaviours among youth.

All Authors: Tarun Katapally, ; Scott Leatherdale, University of Waterloo, School of Public Health and Health Systems; Rachel Laxer, Public Health Ontario; Wei Qian, University of Waterloo

ID: 103
Author: Dr. Alan Katz
Title: Ambulatory care sensitive conditions (ACSC): Deconstructing the Construct
Type of Abstract: Oral

Objectives: To explore the validity of ACSC hospital admission rates as a composite measure of primary care (PC) effectiveness in the context of on-reserve First Nations (FN) health.

Approach: Retrospective longitudinal observational study of all sixty-three Manitoba FNs between 1984 and 2015. We calculated annual hospital admission rates for different categories of ACSC (acute, chronic, vaccine preventable and mental health conditions) for different models of on-reserve PC service delivery. Differences in funding and jurisdictional control determine the models of care. We controlled for age, sex, socioeconomic status and premature mortality rates in the Generalized Estimating Equation models, which used a rolling 5-year aggregate admission rate to compensate for low total admission rates. The inclusion of mental health diagnoses in the definition of ACSC is a unique innovation.

Results: ACSC hospitalization rates decreased over the study period for all models of care by an average of 3.3%. Annual adjusted rates dropped from 84.42 (95%CL 60.26-118.26) to 36.24 (95% CL 35.90 - 36.58). The findings for chronic, acute and vaccine preventable ACSC follow a similar pattern with average decrease of 3.4%, 4.4% and 6.2% respectively. In contrast, the rates of admission for mental health ACSC conditions increased 0.1% on average with a range of 1.0 to 5.9% in the models of care provided in FN communities. The rates of hospital admission for ACSC mental health conditions varied across PC service delivery models while nursing station rates increased dramatically from 9.36(95%CL 6.62-13.23) to 28.39 (95%CL 18.30-44.03).

Conclusion: Our results provide insight into the lack of homogeneity of ACSC as a single construct in Manitoba FN. These findings should be confirmed in other populations however in the interim we recommend caution in the use of ACSC as a composite indicator of PC effectiveness.

All Authors: Alan Katz, University of Manitoba; Josée Gabrielle Lavoie, Ongomiizwin Research; Grace Kyoon-Achan, University of Manitoba; Stephanie Sinclair , First Nation Health and Social Secretariat of Manitoba ; Wanda Phillips-Beck, First Nations Health and Social

ID: 142
Author: Mr. Kyle Kemp
Title: Results from the Canadian Patient Experiences Survey of Inpatient Care (CPES-IC): A Descriptive Study from 93 Alberta Hospitals
Type of Abstract: Oral

Objectives: The Canadian Patient Experience Survey-Inpatient Care (CPES-IC) was approved for widespread use in 2014. Thus, a gold standard for measuring adult inpatient experience in Canadian hospitals now exists. The study objectives were to describe the feasibility of the CPES-IC and to provide preliminary results from its use in Alberta.

Approach: This retrospective study examined survey responses obtained over a 30 month period from 93 Alberta hospitals. Surveys were administered by telephone within six weeks of the patient's discharge from hospital. A quota of 10 percent of eligible discharges from each hospital was set. The survey took approximately 12 to 15 minutes to complete and contained 56 questions touching on various aspects of care (e.g., communication with nurses, communication with doctors, pain control and medications, discharge information). Survey responses were classified as percent in "top-box", where "top box' represented the most positive answer choice to each question.

Results: From April 2014 to September 2016, 52,809 surveys were completed. Respondents were predominantly female (63.6%), and had a mean age of 53.4±19.4 years. Overall, 60.9% of respondents rated their overall care as 9 or 10 out of 10 (best), and 71.8% stated that they would "definitely recommend" the hospital to friends and family members. Top performing questions related to nurses treating patients with courtesy and respect (83.7% responding "always"), doctors treating patients with courtesy and respect (82.8% "always"), and hospital staff asking patients if they had the help they needed once returning home (82.7% "yes"). Poor-performing areas included staff describing side effects of new medications (47.7% "always"), night quietness of the hospital environment (48.9% "always"), and staff being up-to-date about the patient's care (58.4% "always").

Conclusion: Our results provide patient-reported feedback about elements of care which are highly rated, and potential areas for improvement in Alberta hospitals. In collaboration with the Canadian Institute for Health Information, the data may be used for future pan-Canadian comparative and case-mix analyses to ensure valid comparisons between jurisdictions and hospitals.

All Authors: Kyle Kemp, University of Calgary; Sadia Ahmed, University of Calgary; Hude Quan, University of Calgary; María José Santana, Cumming School of Medicine, university of Calgary

ID: 320
Author: Ms. Kylie Kidd Wagner
Title: A PRACTICAL, EVIDENCE-BASED APPROACH TO BRIDGING THE VALLEY OF DEATH IN HEALTH SYSTEM INNOVATION
Type of Abstract: Oral

Objectives: The gap between innovation and widespread adoption (known within diffusion of innovation literature as the 'valley of death') needs to be "bridged" to spread health system innovation. We sought to understand how primary care teams approach the work of change, thus learning more effective strategies for broader engagement and implementation.

Approach: Within the context of adopting the Patient's Medical Home model, we used Cognitive Task Analysis (CTA) to interview family physicians and 1-2 team members (18 interviews across 8 sites). CTA requires extensive training and is an effort-intensive method, but has a decades-long track record of understanding and improving team function in high-stakes settings such as civil and military aviation, firefighting, and intensive care. Group analysis meetings were held to review the coded transcripts and develop mental models of how teams approach and manage the work. Purposeful sampling for variation in clinic size, rurality and early majority vs early adopter status.

Results: Individual physician preference vs. clinic preference to engage in a change creates a complexity of differences in how teams approach change and what supports they require. Those considered early majority (those who are a bit slower to take up change) were open to try new innovations but in small incremental steps. Easy access to support when needed and the use of formal and informal structures and processes facilitated their team engagement. Working together to improve how the work gets done also fostered an "equal-footing" dynamic amongst team members.

Conclusion: Teams considered as early majority require more time and ongoing, local support to transform. Our findings will provide policy makers, leaders and other stakeholders with a framework for designing and modifying large-scale interventions to spread beyond innovators and early adopters.

All Authors: Tanya Barber, University of Alberta - EnACt; June Austin, TOP-AMA; Kylie Kidd Wagner, TOP-AMA; Lynn Toon, TOP-AMA; Lee Green, University of Alberta - EnACt; Sandee Foss, AMA-TOP; Sue Peters, AMA-TOP; John Lester, AMA-TOP; Arvelle Balon-Lyon, AMA-TOP

ID: 341
Author: Ms. Caroline King
Title: Measuring patient attachment in primary health care in the context of enrolment policies in Quebec and British Columbia, 2000-2016
Type of Abstract: Oral

Objectives: Patients' relationships with, and attachment to, primary health care providers can influence patient experience, continuity and quality of care, and health outcomes. Enrolment policies that formally link patients to providers are intended to improve attachment. We identify attachment measures relevant to different stakeholders that can be measured using administrative data.

Approach: This work is part of a larger multi-stakeholder SPOR policy analysis grant on primary care reform. We conceptualize patient enrolment and attachment as distinct notions where enrolment constitutes a policy-driven formalized commitment, and attachment reflects the duration and quality of the actual patient-physician relationship. To identify facets of patient attachment which could be modified by enrolment policies we: 1) conducted a scoping literature review to examine how attachment is defined and measured; and 2) held a meeting with stakeholders including patient partners, decision makers, researchers, and clinicians to identify aspects of attachment that are important to each group.

Results: Attachment can be measured with administrative data at both the patient level (e.g., percent of visits with given physician) and at the physician level (e.g., percent of physician's patients screened). Stakeholders identified commitment, continuity, quality, accessibility, care management, and the length of the relationship as important dimensions of attachment. Patient partners prioritized patient-level measures of attachment and capturing who physicians choose to enrol, whereas decision makers highlighted physician-level "productivity" measures. We provide examples of how these measures can be operationalized using administrative data, including with algorithms that combine several indicators. The impact of enrolment policies on attachment should be represented by a change in attachment indicators. A patient's ability to benefit from enrolment and/or attachment is likely a function of their health status or vulnerability.

Conclusion: We identified aspects of attachment that can be affected by enrolment policies, are established in the scientific literature, can be captured in administrative data, and were prioritized by stakeholders, including patients. These can be used to evaluate the impacts of provincial enrolment policies on attachment.

All Authors: Caroline King, McGill University; Erin Strumpf, McGill University; Ruth Lavergne, Simon Fraser University; Julie Fiset-Laniel, ; Megan Ahuja, CHSPR; Kimberlyn McGrail, School of Population and Public Health, University of British Columbia; Centre for Heal

ID: 459
Author: Ms. Ashra Kolhatkar
Title: Patterns of borrowing to finance out-of-pocket drug costs in Canada: results from a national survey
Type of Abstract: Oral

Objectives: Due to gaps and other costs associated with the mix of public and private insurance that covers prescription drugs for Canadians, many patients must pay out-of-pocket for prescription drugs. We aimed to quantify the frequency and characteristics of Canadians who borrow money to pay for prescription drugs.

Approach: We worked with Statistics Canada to design and administer a rapid response module as part of the 2016 Canadian Community Health Survey. This cross-sectional, national survey was fielded between January 1 and June 30 2016. We restricted our analysis to respondents who answered the question regarding borrowing to pay for prescription drugs and reported spending money out-of-pocket on prescription drugs in the prior 12 months. Among respondents who spent money out-of-pocket for prescription drugs, we explored the frequency of borrowing and used logistic regression to identify characteristics associated with borrowing.

Results: Of the 15,395 respondents in our analytic sample, 2.5% (95%CI: 2.1% to 2.7%) reported borrowing money to pay for prescription drugs representing an estimated 731,000 Canadians. Those reporting borrowing tended to be younger, in poorer health, have more chronic conditions, and spend more out-of-pocket on prescriptions than those who did not borrow. Controlling for other factors, our multivariate model found younger age, low self-reported health status, government prescription drug insurance or no insurance, two or more chronic conditions, household income less than $40,000, and higher out-of-pocket spending on prescription drugs to be associated with higher odds of borrowing.

Conclusion: Many Canadians are borrowing money to pay for out-of-pocket prescription drug costs. Borrowing is more prevalent among already vulnerable groups such as those who are younger, have multiple chronic conditions, are low income, and have high out-of-pocket drug costs. Policy regarding drug costs should pay particular attention to these groups.

All Authors: Ashra Kolhatkar, Centre for Health Services and Policy Research, University of British Columbia; Michael Law, UBC; Lucy Cheng, UBC Centre for Health Services and Policy Research; Steven Morgan, University of British Columbia; Laurie Goldsmith, Simon Fras

ID: 463
Author: Ms. Ashra Kolhatkar
Title: The consequences of patient charges for prescription drugs in Canada: A cross-sectional survey
Type of Abstract: Oral

Objectives: Many Canadians face significant out-of-pocket charges for prescription drugs. While prior work suggests this causes some patients to not take their medications as prescribed, we have little understanding of whether charges for prescription medicines lead patients to forego basic needs or use more health care services.

Approach: As part of the 2016 Statistics Canada Canadian Community Health Survey, we designed and fielded cross-sectional questions to 28,091 individuals regarding prescription drug affordability, consequent health services utilisation, and trade-offs with other expenditures. We calculated weighted population estimates and proportions, and used logistic regression to determine which patient characteristics were associated with these behaviours.

Results: We found that 5.5% of Canadians reported being unable to afford one or more drugs in the prior year, (95% Confidence Interval: 5.1%-6.0%), representing 8.2% of those with at least one prescription. Our survey responses suggest that approximately 303,000 Canadians had additional doctor visits, 93,000 sought care in the emergency department, and 26,000 were admitted to hospital at the population level. Furthermore, we estimated that many Canadians forego basic needs such as food (730,000), heat (238,000), and other health care expenditures (239,000) because of drug costs. These 5 outcomes were more common among females, younger adults, Aboriginal Peoples, those in worse health, lacking drug insurance, and having lower income.

Conclusion: Out-of-pocket charges for medicines for Canadians are associated with foregoing prescription drugs and other necessary spending, as well as use of more health care services. Changes to protect vulnerable populations from drug costs might reduce these negative outcomes.

All Authors: Ashra Kolhatkar, Centre for Health Services and Policy Research, University of British Columbia; Michael Law, UBC; Lucy Cheng, UBC Centre for Health Services and Policy Research; Irfan Dhalla, Health Quality Ontario; Steven Morgan, University of British

ID: 501
Author: Dr. Sara Kreindler
Title: Why Is Soft Integration So Hard? Assessing System-Level Strategies for Primary Care Renewal in Manitoba
Type of Abstract: Oral

Objectives: Primary care renewal (PCR) cannot succeed without substantive practice change on the part of fee-for-service physicians. Policymakers across Canada must balance two conflicting imperatives: fostering nonconflictual relationships with independent physicians and ensuring mechanisms of physician accountability. We examine the ramifications of this balancing act in the Manitoba context.

Approach: Our explanatory case study of primary-care system change combined interviews with 31 fee-for-service, 29 alt-funded physicians and 35 provincial and regional policymakers/managers; extensive document review, including synthesis of evaluation reports on PCR initiatives; and observation (meetings, engagement events). This presentation focuses on initiatives directed towards fee-for-service physicians, 2010-15. We examined the extent of top-down ("stipulation") and bottom-up ("stimulation") strategies, and how these were perceived by physicians and policymakers/managers. Qualitative analysis (content and thematic analysis, using NVIVO) was undertaken by two researchers, who coded independently and compared interpretations; emerging findings were discussed by the full researcher–stakeholder team.

Results: Policymakers eschewed strategies that they deemed to instantiate either excessive stipulation or excessive stimulation. Flagship initiatives, including My Health Teams (primary care networks), were characterized by voluntary adoption, indirect incentives, and an expectation of physician participation in governance, within predetermined parameters. Whereas policymakers perceived such initiatives as enshrining equal partnership, many fee-for-service physicians saw them as a bureaucratic enterprise in which physicians lacked voice; this was a barrier to their recruitment and active engagement. Initiatives that did not attempt large-system redesign but supported a specific behaviour change financially (e.g., electronic medical record adoption) or non-financially (e.g., Family Doctor Finder) were more successfully implemented; this approach seemed best suited to easily observable behaviours. Strategies continue to evolve as early learnings are incorporated.

Conclusion: Policymakers' caution of extreme stipulation and stimulation is understandable; yet, when the strongest potential options are avoided, only weaker options remain. This may limit success establishing nonconflictual relations and physician accountability mechanisms for system transformation. Such dilemmas persist in all provinces, including Manitoba, as policymakers refine PCR strategies.

All Authors: Sara Kreindler, University of Manitoba; Ashley Struthers, ; Colleen Metge, Centre for Healthcare Innovation; Catherine Charette, ; Paul Beaudin, George & Fay Yee Centre for Healthcare Innovation; Sunita Bapuji, George & Fay Yee Centre for Healthcare Inno

ID: 524
Author: Ms. Siyana Kurteva
Title: Patterns of opioid utilization in the 90-days post hospital discharge and risk of re-admissions and emergency department visits
Type of Abstract: Oral

Objectives: To describe opioid utilization patterns after hospitalization for patients admitted to medical and surgical units at a tertiary care hospital in Montreal, Quebec between October 2014 and November 2016 and to estimate the association between patterns of opioid use and risk of adverse health outcomes in the 90-days post discharge.

Approach: Opioid utilization in the year prior to and 90-days after hospitalization was measured using medication dispensing data from the Quebec provincial healthcare databases (RAMQ) while hospital re-admissions and ED visits were obtained from RAMQ medical services. Patient characteristics and discharge prescriptions were obtained from the hospital chart. Time-varying utilization of opioids after discharge was modeled as: 1) current use, 2) cumulative duration of past use, and 3) cumulative duration of use within the last 10 days, using Cox models. All analyses were adjusted for age, sex, chronic conditions, concomitant medication use, and history of opioid use.

Results: Of the 3,308 included patients mean age was 70 (SD 12), 57% were male and 47% were discharged from surgical units. 856 (26%) patients had a history of opioid use in the 1-year prior to admission, 1528 (46%) were prescribed an opioid at discharge and 1481 (45%) filled an opioid in the 90-days post discharge. Among patients prescribed an opioid at discharge, 79% filled their prescription post discharge, where opioid naïve patients were less likely to fill their prescriptions compared to those with a history of opioid use (40% vs 81%). Our multivariable Cox models suggested that cumulative duration of opioid exposure in the past 10 days post-discharge was associated with a 10% increased risk of ED visits and re-admissions.

Conclusion: Patients with a history of opioid use were more likely to both receive an opioid prescription at hospital discharge and fill their prescription. Our findings suggest that longer-term utilization patterns of these medications after hospitalization may increase the risk of re-admissions and ED visits.

All Authors: Siyana Kurteva, McGill ; Robyn Tamblyn, McGill University - Institute of Health Services and Policy Research; Daniala Weir, McGiIll University

ID: 374
Author: Dr. Christine Kurtz Landy
Title: Factors Maternity Care Providers Consider When Counselling Women about a Trial of Labour after Caesarean Section (TOLAC): Findings from a Discrete Choice Conjoint Experiment
Type of Abstract: Oral

Objectives: Non-medically indicated repeat Caesarean sections (CS) increase health care costs and add strain on the already existing shortage of maternity care providers. Maternity care providers are well positioned to influence women's decisions about childbirth. We identified the factors providers consider when recommending TOLAC versus elective repeat CS.

Approach: A discrete choice conjoint experiment was implemented with 496 maternity care providers, i.e. obstetricians, midwives and family physicians who completed 15 choice tasks, each presenting 3 scenarios. Each scenario described 3 of 12, 3-level attributes (factors) thought to influence the decision to recommend a TOLAC. The attributes were derived from in-depth interviews with 39 maternity care providers and the literature. Using conditional logit and latent class analyses, we estimated the relative influence of each attribute on the decision to recommend a TOLAC and identified subsets of participants with different attribute preferences.

Results: Two subsets of providers were identified. The 5 most influential attributes in subset 1, in order of importance, were women's preferred delivery method, women's chance for a successful vaginal delivery, women's anxiety regarding TOLAC, women's understanding of the risks of TOLAC, and colleague support for TOLAC. The 5 most influential attributes in subset 2, in order of importance, were women's chance for a successful vaginal delivery, body mass index, women's preferred delivery method, women's understanding of the risks of TOLAC, and provider payment/reimbursement for a TOLAC.

Conclusion: To reduce the rate of non-medically indicated repeat CSs, women must be adequately educated about the risks and benefits of TOLAC and repeat CS. Professional education to promote colleague support for TOLAC and improved reimbursement for TOLAC may further help increase TOLAC rates and thus decrease medically unnecessary repeat CS.

All Authors: Christine Kurtz Landy, York University; Wendy Sword, University of Ottawa; Charles Cunningham, McMaster University; Heather Rimas, McMaster University; Bailey Stewart, McMaster University; Anne Biringer, Mount Sinai Hosptial; Sarah D. MacDonald, McMaster

ID: 326
Author: Dr. Tracey-Lea Laba
Title: What happens to drug utilisation and expenditure when cost-sharing is removed? An example from British Columbia, Canada .
Type of Abstract: Oral

Objectives: Removing cost-sharing for medicines, which is independent of health status, is under active discussion for many drugs and in value-based insurance design. Understanding the potential impact on medicine utilisation and expenditure ought be known. This study sought to estimate the impact of completely removing cost-sharing on medication use and expenditure.

Approach: Fair Pharmacare, British Columbia's income-based public drug plan, includes a household maximum out-of-pocket limit. When one household member is prescribed a long-term high-cost drug surpassing this maximum, cost-sharing is completely removed for other family members independent of their health status. We used an interrupted time series design to study the impact of removing cost-sharing on these other household members. We studied the average prescription numbers and drug expenditures per month for 24 months prior to and following cost-sharing removal for other household members.

Results: After exclusions, 1895 individuals initiated a drug exceeding their family maximum and 2191 household members of those individuals were studied (69% annual household income <$CAD14,374). 533 household members initiated medication for the first time once cost-sharing was removed. Removing cost-sharing resulted in a sustained increase in the level of drug expenditure of $2.65 (95%CI $0.58-$4.52 P<0.001), representing an immediate increase of about 16%. For prescription numbers, there was a sustained and statistically significant increase in the level by 0.05 (95%CI 0.01-4.04, P<0.001), representing a relative increase of approximately 19%. Trends in both outcomes did not appear to change after cost-sharing was removed. Medication initiation by new users substantially increased average expenditure after cost-sharing removal primarily due to a threefold increase in expenditure for antiviral agents.

Conclusion: Completely removing cost-sharing, when it is independent of health status, significantly increased medication use and expenditure particularly due to the initiation of medicines by new users. While this suggests that costs are a barrier to use, the appropriateness of this additional use, especially among new users, requires further investigation.

All Authors: Tracey-Lea Laba, The University of Sydney/University of British Columbia; Heather Worthington, UBC Centre for Health Services and Policy Research; Lucy Cheng, UBC Centre for Health Services and Policy Research; Michael Law, UBC

ID: 46
Author: Dr. Maude Laberge
Title: Immigration status and potentially avoidable hospitalizations: factors affecting the "healthy immigrant effect"
Type of Abstract: Oral

Objectives: Estimate the effect of immigration and of immigration characteristics (acculturation and origin) on the risk of a hospitalization for an ambulatory care sensitive condition (ACSC).

Approach: We analyzed data on the Canadian adult population aged 18 to 74 years (excluding Quebec) who responded to the 2006 long form Census. The Census data were linked to the Canadian Institute for Health Information (CIHI)'s Discharge Abstract Database (DAD) for fiscal years 2006-2007 and 2007-2008. The CIHI definition of ACSC hospitalizations was used to identify potentially avoidable hospitalizations in the DAD. Immigration factors analyzed included years in Canada, ethnic origin, and ability to speak one of the official languages. We conducted a logistic regression with an ACSC admission as the binary outcome variable.

Results: There were 3,342,467 respondents aged between 18 and 74 to the long form census. Using the Canadian at birth as our reference population, immigrants had significantly lower odds of an ACSC hospitalization, with the protective effect diminishing with time spent in Canada: AOR=0.44, CI:0.42-0.47 for recent immigrants having lived in Canada for up to 5 years, AOR=0.682, CI=0.65-0.72 for immigrants with 6 to 10 years in Canada, AOR=0.71, CI=0.70-0.73 for immigrants with over 11 years in Canada, and AOR=0.86, CI=0.85-0.88 for children of immigrants. The protective effect was stronger in immigrants of Asian origins and lower in those of European and Oceanic origins. Older age, being male, and living in a rural area were significantly associated with higher risk of a hospitalization.

Conclusion: Our results suggest that the healthy immigrant effects dissipates with time in Canada but remains even in children of immigrants. Factors such as the severity of their condition, and access to care in the community could contribute to the risk of hospitalizations.

All Authors: Maude Laberge, Université Laval; Marc Leclerc, Université Laval

Title: Classification Methodology and Small Area Variation Analysis of Prescription Drugs in a Publicly Insured Senior Population
Type of Abstract: Oral

Objectives: The objectives of this study are 1) to develop a classification methodology of prescription drugs that enables analyses of utilization by mutually exclusive drug classes; 2) test the methodology to estimate small area variations in prescription drugs in a publicly insured population.

Approach: This population-based study design used small area variation analysis methods to estimate geographical variations and rank prescription drug classes by their level of variation. Prescription drug data were extracted from the Régie d'assurance maladie du Québec database for the fiscal year 2016-2017 for all seniors. Drugs were categorized based on an adaptation of the World Health Organization ATC system. Age-sex adjusted prescription rates were calculated for each local health network (ca. 90,000). Systematic components of variation (SCV) and extremal quotients were calculated for each therapeutic indication. Drug classes were ranked based on SCV.

Results: After excluding drugs for which there were very few users, and drugs for rare diseases, our study population consisted of 1,086,248 seniors. There were 597 denominations for a total drug expenditure of CAD 2.192 billion. Drugs were classified into 47 therapeutic targets. SCV varied between 0.5 for antihypertensive drugs and 162.5 for HIV drugs, with a SCV weighted average of 2.8. Therapeutic targets with higher numbers of consumers had lower SCV. The top five therapeutic targets in terms of the numbers of consumers had SCV ranging between 0.6 and 2.7. Three therapeutic targets were identified as highly used and as having high utilization variations: benzodiazepines, laxatives, and non-ORL corticoids. Large variations were also observed in therapeutic targets with low scientific uncertainty such as anticonvulsants.

Conclusion: Our findings show variations in the consumption of many classes of prescription drugs across small areas in the senior population of the province of Quebec. The results can support prioritization strategies to

 improve practive quality, reduce variations and potential inappropriate use of prescription drugs.

All Authors: Maude Laberge, Université Laval; Bernard Candas, INESSS; Caroline Sirois, Université Laval; Guillaume Boucher, INESSS; Houssem Missaoui, Université Laval

ID: 216
Author: Dr. Lauren Lapointe-Shaw
Title: Follow-Up, Return to Hospital, and Death After Hospital Discharge During the December Holiday Period: The Home for the Holidays Study
Type of Abstract: Oral

Objectives: Reduced staffing levels during the December holiday period may result in decreased coordination of and access to follow-up care. We aimed to determine whether patients discharged over the December holiday period have lower rates of outpatient follow-up or higher rates of readmission than patients discharged from hospital at other times.

Approach: This was a retrospective cohort study of patients discharged home following an urgent admission to an acute care hospital in Ontario, Canada. Patients discharged home during the 15-day December holiday period were compared to those discharged during two control periods in late November and January, from November 2002 to January 2016. The primary outcome was unplanned return to hospital or death at 30 days. 7- and 14-day outpatient physician follow-up and unplanned return to hospital or death was secondary outcomes. Multivariable logistic regression with generalized estimating equations was used to adjust outcomes for patient, admission, and hospital characteristics.

Results: The 217,549 (32.4%) patients discharged from hospital during the December holiday periods and 453,397 (67.6%) patients discharged during control periods had similar baseline characteristics and prior healthcare utilization. Patients discharged during a December holiday period were at higher risk of unplanned return to hospital or death at 7 days (12.6% vs 11.1%, adjusted OR 1.16, 95% CI 1.14-1.17), 14 days (17.9% vs 16.4%, adjusted OR 1.12, 95%CI 1.11-1.14) and 30 days (24.9% vs 24.0%, adjusted OR 1.06, 9% CI 1.05-1.08). Holiday-discharged patients were also significantly less likely to have outpatient physician follow-up at 7 days (36.2% vs 47.6%, adjusted OR 0.61, 95% CI 0.60-0.62) and 14 days (59.4% vs 68.5%, adjusted OR 0.65, 95% CI 0.65-0.66) after leaving hospital.

Conclusion: We found that patients discharged from hospital during the December holiday period were at higher risk of readmission, yet are less likely to have outpatient follow-up after discharge. These findings can be used to further investigate a potentially modifiable risk factor for hospital readmission following December holiday discharge.

All Authors: Lauren Lapointe-Shaw, University of Toronto; Chaim Bell, Mount Sinai; Noah Ivers, Women's College Hospital; Don Redelmeier, University of Toronto; Peter Austin, University of Toronto; Jin Luo, Institute for Clinical Evaluative Sciences

ID: 567
Author: Dr. Ruth Lavergne
Title: Practice intentions among Canadian family medicine residents
Type of Abstract: Oral

Objectives: Family medicine residents (FMRs) choose among a range of options as they enter practice, including both practice models (e.g. solo, group, interprofessional team) and type (e.g. practice with a clinical focus, comprehensive care). We describe practice intentions among Canadian FMRs and explore personal and contextual characteristics associated with them.

Approach: We use survey data from all residency programs collected by the College of Family Physicians of Canada. Data include personal characteristics (age, gender, marital status, parenthood, and urban/rural/remote childhood environment), and information on training (Canadian vs. international medical degree and region of residency). Practice intentions for various models and types are captured using a five-point scale, which we dichotomize to compare highly likely and somewhat likely vs. neutral, somewhat unlikely, or not at all likely. We use bivariate (chi2) and multivariate logistic regression to explore the relationship between personal and training characteristics and each dichotomous practice intention variable.

Results: Of 1,680 FMRs completing the survey as they exited residency, percentages reporting it was somewhat or highly likely that they would choose each type of practice are as follow: solo practice, 8%; interprofessional team-based practice, 90%; comprehensive care that includes a special interest, 69%; practice with a focus only on specific clinical areas, 32%. Intentions for solo practice were higher among male residents and international medical graduates, and varied significantly by region. Intentions for interprofessional practice were higher among female physicians and residents with children. Intentions for comprehensive practice that includes a special clinical interest were higher among residents from rural and remote settings. Intentions for focus only on specific clinical areas were higher among male residents and residents with children.

Conclusion: Most FMRs, and especially female FMRs and FMRs with children intend to practice in interprofessional team-based models, though this option is not available in many places. The fact that 1 in 3 FMRs do not intend to do comprehensive practice should be considered when planning primary care health human resources.

All Authors: Ruth Lavergne, Simon Fraser University; Megan Ahuja, CHSPR; Lindsay Hedden, Simon Fraser University; Kimberlyn McGrail, School of Population and Public Health, University of British Columbia; Centre for Health Services and Policy Research, University of B

ID: 84
Author: Dr. Josée Gabrielle Lavoie
Title: Expanding the space for equity-oriented primary healthcare: Policy requirements
Type of Abstract: Oral

Objectives: The purpose of this paper is to provide an analysis of the factors that shape how non-government (NGO) not-for-profit community health centres (CHCs) are able to carry out an equity mandate and, from this, identify what is required at the level of policy.

Approach: For the analysis presented in this paper, we developed a socio-historical narrative regarding each clinic, including its position within the wider healthcare system. Second, we reviewed the minutes of Board meetings along with funding contracts for each clinic for a 5-year study period (2011-2016) to construct a profile of each clinic's contractual environment, to identify internal and external pressures (e.g. staffing issues, new policies). Third, we conducted in-depth interviews with clinic leaders (administrative and clinical leads, board members, n=7) specifically focused on the policy/funding context and its impact on the clinic. These interviews were audio recorded and transcribed verbatim.

Results: Our findings show that CHCs are 1. sentinels of equity: their commitment to meeting the needs of the community makes them more likely to become aware of inequities, or emerging vulnerable populations, and crises. 2. CHCs are better equipped to develop care responses that fit with the needs and context of local populations, partly due to their agility and community connection, which can result in community-driven or informed innovations. 3. CHCs are (or should be) able to advocate to the larger healthcare system to ensure that emerging needs are recognized. 4. CHCs are equipped to educate the healthcare system on system-wide responses to new needs. Our data also shows that this last role is largely missing. Other roles remain under-operationalized.

Conclusion: The CHC sector has been shown effective at addressing inequities through innovation. They are an integral part of health systems design, and require a policy enabling environment to achieve their equity potential. We conclude with a series of recommendations.

All Authors: Josée Gabrielle Lavoie, Ongomiizwin Research; Colleen Varcoe, UBC School of Nursing; Marilyn Ford-Gilboe, Western University; Nadine Wathen, University of Western Ontario; Annette Browne, UBC School of Nursing

ID: 406
Author: Dr. Susan Law
Title: Bringing Netflix technology to video narratives of experiences of breast surgery: helping women navigate the information tsunami
Type of Abstract: Oral

Objectives: To design and pilot a mobile application to support decision-making about surgery for breast cancer patients, drawing upon a qualitative collection of personal narratives from a diverse sample of Canadian women, using video/audio recording (published on www.healthexperiences.ca).

Approach: In a previous study, we conducted in-depth interviews with 35 women using video/audio recording to collect Canadian stories about lived experiences of breast cancer. Participants highlighted the need for more specific information between diagnosis and surgery relevant to their personal situation and preferences. They also wanted to learn from other women's experiences. We have worked with patients, clinicians and informatics experts to develop a mobile app to help search the existing narratives for information relevant to their personal situation and preferences. We completed secondary analysis of the original collection, software design, and evaluation using focus groups and the heiQ tool.

Results: Secondary analysis of the breast cancer narratives revealed key themes, and their interconnections, relevant to the experience of surgery, including: preparation, treatment decisions, impact on life, after care, reconstruction, prostheses, lumpectomies and mastectomy, and complications. This informed the development of the structure and content for the app. Working with a recommender system, we designed the app using content-matching (user and speaker profiles; user interests and video content), as well as collaborative filtering to identify clips 'liked' by the user, and by similar users. Key messages from clinical experts and patient experience were synthesized into a 2-minute introductory Powtoons video. Pilot testing and final design is in process in collaboration with patients and clinicians; we will present the results of this evaluation and prototype app.

Conclusion: Developing reliable, evidence-based tools and electronic applications that are based on diverse collections of other peoples' experiences of illness offers a novel approach to support information seeking about treatment options, consequences and experiences, and to inform decision-making.

All Authors: Susan Law, Institute for Better Health; Ilja Ormel, St. Mary's Research Centre; Charles Onu, St. Mary's Researche Centre; Mona Magalhaes, St. Mary's Research Centre; Donna Tataryn, St. Mary's Hospital Center; John Hughes, McGill University

ID: 69
Author: Dr. Karen Lawford
Title: Mapping maternity care services for First Nations women in Manitoba
Type of Abstract: Oral

Objectives: Describe the process related to maternity care services that First Nations women in Manitoba receive when they are subject to Health Canada's evacuation policy.

Approach: This research employed intersectionality, institutional ethnography, and semi-structured interviews with First Nations in Manitoba to generate a visual and descriptive map of Health Canada's evacuation policy. Mapping permitted the identification of care gaps and offers recommendations to address these important gaps.

Results: First Nations women and their family members were largely responsible for coordinating their own evacuation and prenatal care appointments once they were evacuated out of their communities. The lack of coordination and communication among staff working in the federal, provincial, and municipal health care systems resulted in the complete absence of prenatal education by public health nurses employed by the Winnipeg Regional Health Authority. Further, First Nations women are not referred to midwifery services once they are evacuated, even though registered midwifery training in Manitoba was developed to specifically serve First Nations populations. The lack of public documents in Manitoba that describe the content and timing of routine prenatal and postpartum visits is a gaping information void that must be addressed immediately. My research found

Conclusion: My research found that First Nations women and family members navigate Health Canada's evacuation policy usually without systematic and transparent services. First Nations women and community members continue to support each other even in the face of systemic and colonial efforts to govern their bodies, their families, and community knowledges.

All Authors: Karen Lawford, Carleton University

ID: 328
Author: Ms. Marichelle Leclair
Title: Effectiveness and cost-effectiveness of Housing First for mentally ill homeless people with different patterns of criminal justice involvement
Type of Abstract: Oral

Objectives: This study 1) compares the impact of Housing First (HF) on criminal justice (CJ) outcomes, costs and residential stability by profile of criminal justice involvement; and 2) tests whether the cost-effectiveness of HF varies by profile, using days stably housed as the measure of effectiveness.

Approach: The At Home/Chez Soi (AH/CS) trial tested HF in five Canadian cities using a randomized controlled trial design. The sample consists of 1,541 AH/CS participants in Toronto, Vancouver and Montreal. Criminal justice involvement was measured using official police records, and profiles were identified using a latent class analysis. Using generalized linear mixed models, we will examine the impact of the intervention on two types of offending (survival/nuisance offending and violent offending), days stably housed and total costs at 12 and 24 months. We will explore the cost-effectiveness of HF using days stably housed as the measure of effectiveness.

Results: We hypothesize that HF will contribute to reducing survival/nuisance offending, but may not have an impact on violent offending. We expect that HF will show greater cost-effectiveness for profiles defined by multiple misdemeanors and poverty-driven offending in comparison to profiles defined by fewer but more violent offenses. The RCT design and the extensiveness of the justice-related administrative data for this large sample of mentally ill homeless individuals offer a unique opportunity to examine the impact of criminal justice profiles on the effectiveness of Housing First interventions.

Conclusion: Relative lack of effectiveness in one or more profile will suggest the need for adjunctive interventions tailored to the criminogenic needs of those profiles.

All Authors: Marichelle Leclair, McGill University; Ashley Lemieux, ; Eric A Latimer, McGill University; Anne Crocker, Université de Montréal

ID: 533
Author: Dr. Justin Lee
Title: Medication Predictors of High Cost Healthcare Use Among Older Adults
Type of Abstract: Oral

Objectives: To determine the relative contribution of medications to high cost user (HCU) healthcare expenditures and explore whether appropriate prescribing is a predictive factor in determining future HCU status and health outcomes.

Approach: Retrospective population-based administrative database cohort of incident HCUs aged ≥ 66 years in the top 5% of healthcare expenditure users in Ontario in fiscal year 2013 but not fiscal year 2012. Identified HCUs were matched to non-HCUs (1:3) based on age, sex and health planning region. Twenty-four medication classes were selected a priori for descriptive and regression analysis based on being either: (i) "high quality" with a strong evidence-base for the prevention of complications of common, high priority disease states in seniors, (ii) "high risk" where potential harms often outweigh benefits in seniors, or (iii) "higher-cost" (per unit).

Results: Senior HCUs (n=176,604) accounted for $4.9 billion in healthcare and $433 million in medications costs (FY2013). Medications represented the largest cost-category in the year prior to becoming a HCU (42% of healthcare costs). Annual medication expenditures alone triggered HCU status in 6258 (3.6%) HCUs–primarily biologics used for macular degeneration, those used for arthritis, IBD or MS, and those used for cancer (5216 [3.0%]). Use of these higher-cost medications significantly increased the likelihood of HCU status (OR 11.87, 30.85, 53.46, respectively). Use of high-risk medications such as benzodiazepines, opioids, and antipsychotics significantly increased the likelihood of HCU status [OR 1.62, 3.56, 4.45, respectively) and death in the incident year (OR 1.59, 1.22, 2.89, respectively). High quality medications did not show a strong effect on HCU status.

Conclusion: Medications are important contributors to high cost healthcare use. Use of higher-cost and potentially inappropriate high-risk medications increase the likelihood of HCU status. Interventions focused on improving medication appropriateness and cost-effectiveness may prevent HCU status and contain expenditures.

All Authors: Justin Lee, McMaster University; Sergei Muratov, McMaster University; Jean-Eric Tarride, McMaster University; Michael Paterson, Institute for Clinical Evaluative Sciences (ICES); Kednapa Thavorn, Ottawa Hospital Research Institute; Lawrence Mbuagbaw, McMa

ID: 204
Author: Ms. Sangmin Lee
Title: Non-adherence to maintenance medications for women with inflammatory bowel disease differs by drug class during pregnancy
Type of Abstract: Oral

Objectives: Pregnant women with inflammatory bowel disease (IBD) and other chronic diseases often stop taking their medications, due to concerns about medication exposure during pregnancy. However, little is known about whether adherence differs by medication class.

Approach: A validated case definition was used to identify women with IBD before pregnancy from hospitalization, emergency room, and outpatient physician claims data in Alberta, between 2010 and 2016. Data on dispensed medications were obtained from the Pharmaceutical Information Network. Adherence to medication was defined by a prescription medical possession ratio (MPR) ≥0.8. Women who had two consecutive prescriptions (indicating a physician's intent to treat), and MPR ≥0.8 for a relevant class of maintenance IBD medications in the one year prior to pregnancy were included. Chi-square tests were conducted to examine if medication non-adherence during pregnancy differed by drug class.

Results: Of the 370 women identified with IBD, 170 (45.9%) were adherent to maintenance medications in the year prior to pregnancy. During pregnancy, 50 (29.4%; 95% CI: 23.0%-36.8%) women, who demonstrated adherence in pre-conception period, discontinued or were not adherent to their medications. Adherence to medication during pregnancy differed significantly by drug class (p=0.004). Overall, 46.9% (95% CI: 33.1%-61.3%) of women taking thiopurines, 26.7% (95% 16.7 to 39.6%) of women taking 5-ASA, and 18.0% (95% CI: 10.1%-30.1%) of women taking biologic therapies were not adherent or discontinued their medications during pregnancy.

Conclusion: Almost a third of women discontinued or were not adherent to IBD medications during pregnancy; however, this differed by drug class. Examining patterns of medication adherence is an important first step in identifying areas for education and research on medication safety during pregnancy.

All Authors: Sangmin Lee, University of Calgary; Cynthia Seow, University of Calgary; Kamala Adhikari Dahal , University of Calgary ; Amy Metcalfe,

ID: 167
Author: Dr. Allanah Li
Title: Accumulating multimorbidity: the role of depression, socioeconomic status, and other factors
Type of Abstract: Oral

Objectives: Multimorbidity is a significant challenge facing patients, clinicians, and the healthcare system. This study seeks to determine whether depression is associated with incident multimorbidity. Furthermore, it will explore whether and how this relationship is modified by socioeconomic status (SES) and other factors (e.g. behavioural factors, access to health care).

Approach: This is a longitudinal retrospective cohort study. The cohorts are derived by linking Ontario respondents to the Canadian Community Health Survey Cycles 1.1 and 2.1 and National Population Health Survey 1996/97 to health administrative databases. Survey data is used to identify depression and additional covariates including demographics, SES, and behavioural factors. The cohorts are followed through ten years of administrative data for the development of incident physical illnesses (from a specified list of 15 chronic conditions). Multinomial logistic regression and a Cox proportional hazards model will be used to examine the development of incident illness, multimorbidity, and mortality.

Results: Data analysis is occurring in early 2018 and will be complete by the time of conference presentation. The results of the first analysis will help clarify whether depression is an independent risk factor for the development of multimorbidity in an otherwise healthy cohort over a 10-year follow up period. The second analysis will further explore to what extent the relationship between depression and multimorbidity is modified by other factors. For example, it will clarify whether among individuals with depression, do those with lower SES accumulate multimorbidity earlier/faster/to a greater extent than those with higher SES.

Conclusion: Pending results. It is anticipated that this work will contribute to our understanding of risk factors and determinants of multimorbidity, particularly for people with depression. This in turn can help identify those at risk of developing multimorbidity and clarify potential areas for intervention to improve outcomes.

All Authors: Allanah Li, Institute for Health Policy, Management, and Evaluation, University of Toronto; Walter Wodchis, University of Toronto; Laura Rosella, Dalla Lana School of Public Health, University of Toronto; Paul Kurdyak, CAMH

ID: 604
Author: Ms. Zhiying Liang
Title: Uncontrolled High Blood Pressure and Mild Cognitive Impairment Risk at Baseline of the Canadian Longitudinal Study on Aging Study
Type of Abstract: Oral

Objectives: Dementia is a common in the elderly population, which is often preceded by mild cognitive impairment (MCI). Considering clinical mechanisms of cardiovascular disease and MCI, this cross-sectional study explored associations between uncontrolled high blood pressure (BP) and MCI, using data from the Canadian Longitudinal Study on Aging (CLSA).

Approach: We identified MCI by characterizing typical performances of neurologically healthy people on the cognitive measures employed in the CLSA as standards. We have defined MCI as performance on 2 or more cognitive tests with 1.5 standard deviations (SD) below the age- and sex-adjusted mean with preserved activities of daily living (ADL), excluding self-reported dementia or Alzheimer's disease. We used adjusted mean systolic BP (SBP) ≥ 140 mm Hg or adjusted mean diastolic BP (DBP) ≥ 90 mm Hg with self-reported history of elevated BP or hypertension at baseline to identify individuals with uncontrolled high BP.

Results: Of the 30,097 individuals included in this analysis, 50.9% (n =15320) were female and, mean(SD) age was 63.0(10.3) years. We identified 2214 individuals with MCI, 49.9% (n=1105) of which were female and mean(SD) age was 62.6(10.1) years. We identified 7.9% (n=2224) individuals has uncontrolled high BP. Unadjusted analyses revealed association between uncontrolled high BP and MCI (p =.02). After controlling for sex, age and other comorbidities, logistic regression analysis showed that high BP was associated with all-cause MCI (Odds Ratio [OR], 1.2; 95% CI, 1.0-1.4, p =.01). We did a sensitivity analysis using mean systolic BP (SBP) ≥ 135 mm Hg or mean diastolic BP (DBP) ≥ 85 mm Hg, which also showed association between high BP and MCI (p = .04).

Conclusion: High BP is associated with MCI, even after adjustment for age, sex and other comorbidities. These findings suggest BP control may be a prevention strategy for lowering MCI incidence.

All Authors: Zhiying Liang, University of Calgary; Guanmin Chen, Alberta Health Services; Hude Quan, University of Calgary; Mohammad Chowdhury, University of Calgary; Alexander Leung, University of Calgary; Mingkai Peng, University of Calgary; Eric Smith, University o

ID: 444
Author: Elizabeth Lin
Title: Mortality and other 'bad' outcomes for adults with intellectual and developmental disabilities (DD): Implications for policy and planning
Type of Abstract: Oral

Objectives: Adults with intellectual and developmental disabilities (DD) have complex needs and poor health service outcomes (e.g., poor primary care). We describe mortality rates, long-term care use, repeat hospital and ED visits, and Alternate Level of Care within a cohort of adults with DD and relative to adults without DD.

Approach: A population-based cohort of Ontarians with DD (H-CARDD), aged 19-65 in 2010, was linked to health administrative data to identify five outcomes –30-day repeat ED visits, 30-day readmissions, Alternate Level of Care (ALC: still hospitalized although cleared for discharge), long-term care admission, and mortality. These outcomes were described for the H-CARDD cohort (n=64,699) and compared to a sample of adults without DD. Additionally, three H-CARDD subgroups of provincial policy interest were defined and described: adults with autism (ASD, n=10,695), Down syndrome (DS, n=5,432), and comorbid psychiatric disorder (DD-plus, n=29,476). The outcomes were also studied within subgroups.

Results: H-CARDD percentages for the five outcomes were consistently higher than for adults without DD. Over one-third had repeat ED visits (vs 20%, adults without DD); 7% had hospital readmissions (vs 2%), 5% an ALC designation (vs 1%); and 6% died within the study period (vs 2%).

Compared with the H-CARDD cohort, the subgroups showed different patterns of outcomes. The ASD subgroup was less likely to revisit the ED (27 vs 35%) or to have an ALC designation (3 vs 5%). The DS subgroup was more likely to die (12 vs 6%) or be admitted to long-term care before age 65 (8 vs 4%). The DD-plus subgroup had higher rates of repeat ED visits (42 vs 35%) and readmissions (11 vs 7%).

Conclusion: The comparatively higher H-CARDD percentages across the five outcomes support the need for greater policy and planning attention for adults with DD across health and social support systems. However, the subgroup profiles indicate that narrow solutions may have different direct and indirect impacts on adults with DD.

All Authors: Elizabeth Lin, ; Robert Balogh, UoIT; Tiziana Volpe, Centre for Addiction and Mental Health; Avra Selick, Centre for Addiction and Mental Health; Laura Holder, Institute for Clinical Evaluative Sciences; Yona Lunsky, Centre for Addiction and Mental Health

ID: 587
Author: Ms. Lilian Jia Lu Lin
Title: The role of social identity in informing strategies for organizational-level patient engagement
Type of Abstract: Oral

Objectives: Despite increasing attention to involving patients in various health system domains, cultural barriers and power differentials continue to hinder productive patient engagement. This study aimed to apply the social identity approach (SIA) to examine interactions amongst various stakeholders to inform the formulation of patient engagement strategies at the organization level.

Approach: A critical review of the literature on the social identity approach (SIA) was undertaken to establish an appropriate theoretical framework for examining the dynamic intergroup relations among health care providers, organizational leaders, and patients and families. Through the lens of the SIA, a series of propositions were developed to elucidate how social identity, social structure, group norms and values, and contextual factors influence the ability of diverse stakeholder groups to work collaboratively across disciplinary and social-structural boundaries in the context of organizational-level patient engagement activities.

Results: Based on the SIA, it follows that the divergent nature of the social identities among patients and families, health care providers, and organizational leaders are shaped by their differential experiences interacting with the health care system, as well as individuals' readiness to internalize group norms and values. The stable intergroup differences in power and status add an additional layer of complexity to patient engagement efforts by breeding intergroup tensions, both real and perceived, among the stakeholder groups. Patient engagement efforts that acknowledge and embrace the unique social identities of distinct stakeholder groups while forging a sense of "we-ness" are more likely to build cohesive relationships, and be beneficial to both patients and health care professionals.

Conclusion: The social identity approach holds enormous promise in understanding patient engagement initiatives. Further research should examine real life patient engagement efforts to understand how features of the organizational context and contents of the initiative itself influence social identity and multi-stakeholder collaboration.

All Authors: Lilian Jia Lu Lin, University of Toronto

ID: 59
Author: Dr. Diego Llovet
Title: Reasons for lack of follow-up colonoscopy among persons with a positive fecal occult blood test result for colorectal cancer screening: qualitative findings from Ontario
Type of Abstract: Oral

Objectives: In Ontario, rates of follow-up colonoscopy among persons with a positive guaiac fecal occult blood test result (gFOBT+) remain suboptimal. This study's objectives were to understand the reasons for a lack of follow-up colonoscopy among gFOBT+ persons, and the action plans, if any, that were made to address follow-up.

Approach: We conducted semi-structured interviews with 30 gFOBT+ persons and 30 primary care providers (PCPs). In Ontario, PCPs are responsible for arranging follow-up colonoscopies for gFOBT+ persons. To be eligible, gFOBT+ persons had to be ages 50-74, have a 6-12 month old gFOBT+ and no record of follow-up colonoscopy within six months; those with a prior colorectal cancer diagnosis or a colectomy were excluded. Eligible PCPs had at least one rostered gFOBT+ person without follow-up. Participants were identified through health administrative databases. Transcripts were analyzed inductively for themes using Nvivo 11 (QSR International Pty Ltd., 2015).

Results: gFOBT+ persons were 53% female; 30% had completed no more than high school. PCPs were 50% female; 60% practiced in urban settings. Reasons for lack of follow-up colonoscopy were: person and/or provider believed the gFOBT+ was a false positive; person was afraid of colonoscopy; person had other health issues; and breakdown in communication of gFOBT+ results or colonoscopy appointments. PCPs who initially recommended follow-up colonoscopy did not change the minds of the persons who dismissed the gFOBT+ as a false positive and/or who were afraid of the procedure. Instead, some PCPs allowed gFOBT+ persons to negotiate an alternative follow-up action plan such as repeating the gFOBT or not following up.

Conclusion: PCPs may not be able to adequately counsel gFOBT+ persons who believe the gFOBT+ is a false positive and/or fear colonoscopy. PCPs may lack fail-safe systems to communicate gFOBT+ results and colonoscopy appointments. Using trained navigators may help address these barriers and increase follow-up rates.

All Authors: Nancy Baxter, University of Toronto; Jill Tinmouth, Cancer Care Ontario; Mardie Serenity, Sunnybrook Research Institute; Caroline Bravo, Cancer Care Ontario; Bronwen McCurdy, Cancer Care Ontario; Lawrence Paszat, Institute for Clinical Evaluative Science

ID: 64
Autheur: Ms. Angela Ly
Titre: Redéfinir les services de santé mentale pour les jeunes: De la recherche à l'action
Type d'abstrait: Oral

Objectifs: L'organisation actuelle des services impose une rupture à la majorité, alors que plusieurs troubles de santé mentale apparaissent, entraînant des répercussions quant au rétablissement des jeunes. Cette étude évalue les programmes desservant à la fois les adolescents et les jeunes adultes et analyse les enjeux d'implantation au sein d'un établissement.

Approche: Une revue systématique de revue systématique (RS) a été réalisée dans quatre bases de données (période 2000-2017), avec sélection des articles et évaluation de la qualité par entente interjuges. Les RS devaient étudier un modèle ou un programme spécialisé desservant à la fois les adolescents et les jeunes adultes. Des données contextuelles et expérientielles ont été collectées au moyen d'entrevues auprès d'un comité expert. Un cadre d'analyse a été élaboré par émergence sur la base de la catégorisation des mesures de performance en intervention précoce de Addington et coll. (2005) et des dimensions du rétablissement de Whitley & Drake (2010).

Résultats: 1054 références ont été identifiées. Suivant les critères d'inclusion/exclusion, 5 RS ont été sélectionnées. La majorité des programmes identifiés ont été développés pour la psychose précoce. La preuve scientifique est prometteuse pour ces services quant à leur efficacité sur le rétablissement, mais n'a pu être établie pour l'accès. Aucun programme spécialisé spécifique à d'autres types de troubles de santé mentale ou aux jeunes à risque de développer un trouble de santé mentale n'a été identifié. Les données contextuelles et expérientielles convergent avec les données scientifiques et ont permis d'identifier plusieurs enjeux d'implantation liés à la réorganisation des services. Des facteurs facilitants et contraignants à l'implantation du modèle de soins centré sur la personne et du modèle de collaboration interagence ont été identifiés.

Conclusion: Les programmes devraient pouvoir accueillir tous les jeunes présentant une détresse psychologique ou à risque, et ce, sans égard à l'âge ou au diagnostic. Ces services peuvent s'inspirer des modèles développés pour la psychose. Les recommandations de cette étude sont présentement mises en action à Montréal.

Autheurs: Angela Ly, CIUSSS Ouest-de-l'Ile-de-Montréal; Gilbert Tremblay, CIUSSS Ouest de l'île de Montréal; Sylvie Beauchamp, Centre intégré universitaire de santé et de services sociaux de l'Ouest-de-l'Île-de-Montréal

ID: 224
Author: Mr. Adrian MacKenzie
Title: Why is the number of Nova Scotians unable to find a regular family physician rising?
Type of Abstract: Oral

Objectives: The objectives of this study are to estimate changes in population size and age structure, population health, levels of family physician service provision, the number of family physicians, and family physician participation, activity, and productivity in Nova Scotia between 2006 and 2016.

Approach: This was a quantitative, population-based, hypothesis-generating study based on repeated cross-sectional descriptive analysis. Existing data on seven immediate determinants of family physician supply and requirements between July 1st 2006 and June 30th 2016 were compiled based on an established analytical framework for needs-based health workforce planning. Data sources included provincial administrative health care databases, national population health surveys, and national surveys of physicians. Perspectives from Nova Scotians unable to find a regular family physician, practicing family physicians, and decision-makers from provincial government and health authorities were elicited to inform the analysis and interpretation of data.

Results: Changes in each determinant of the analytical framework – including 1) population size and age structure, 2) population health status, 3) levels of family physician service provision, 4) family physician productivity, 5) the number of licensed family physicians, 6) family physician participation levels, and 7) family physician activity levels – between 2006 and 2016 are described. Distinctions between long-lasting, gradual trends and more recent, larger changes are emphasized. Inadequacies of existing data sources on several determinants of family physician supply and requirements – specifically population health status, levels of family physician service provision, and family physician activity – are discussed, along with their implications for health services and health workforce planning in the province.

Conclusion: The identified changes have direct implications for physician and primary health care planning in Nova Scotia, and emphasize the need to broaden this planning beyond single professions such as physicians. Improving health workforce and service planning in Nova Scotia will require multi-faceted interventions to address the identified data limitations.

All Authors: Adrian MacKenzie, Maritime SPOR SUPPORT Unit; David Gass, Dalhousie University; Gail Tomblin Murphy, Dalhousie University; Adrian Levy, Dalhousie University; Melanie Audette, Dalhousie University; Frederick Burge, Dalhousie Family Medicine; Elizabeth Jeff

ID: 241
Author: Ms. Laura Maclagan
Title: Is cholinesterase inhibitor (ChEI) use and discontinuation during transition to long-term care associated with frailty: a population-based cohort study
Type of Abstract: Oral

Objectives: Understanding the determinants of continued use or withdrawal of ChEIs during the transition into long-term care (LTC) may help in assessing the appropriateness of this decision-making. Patterns of ChEI use at and following LTC admission among persons with dementia are described. We examined whether frailty was associated with discontinuation.

Approach: Linked clinical and administrative health databases were used to conduct a retrospective cohort study of 47,851 adults (aged 66+) with dementia newly admitted to LTC in Ontario between April 2011-March 2015. ChEI use at admission and during the following year was identified. Frailty when admitted was calculated using a validated 72-item index derived from the Resident Assessment Instrument (RAI-MDS 2.0). Discontinuation was defined as a 30-day period when no dispensations occurred and no supply of ChEI was available. Subdistribution hazard models were used to estimate the association between resident characteristics and discontinuation, accounting for the competing risk of death.

Results: Over a third (36.7%) of residents were receiving a ChEI at admission. Among this group, 82.3% continued use and 17.7% discontinued during the following year. After accounting for resident characteristics, ChEI type and history of use, the incidence of discontinuation was 15% higher in frail residents compared to non-frail residents (hazard ratio (HR)= 1.15, 95% confidence interval (CI) [1.01,1.30]). Residents with aggressive behaviours (HR=1.82, 95% CI [1.60, 2.07]), and higher levels of cognitive impairment (HR=1.29, 95% CI [1.10, 1.51]) were also more likely to discontinue. Residents aged 85+ (HR=0.69, 95% CI [0.61, 0.77]) and those who were widowed (HR=0.84, 95% CI [0.77, 0.91]) were less likely to discontinue.

Conclusion: Most LTC residents who entered LTC on a ChEI continued treatment during the subsequent year. Frailty, severity of cognitive impairment and aggressive behaviours were associated with ChEI discontinuation. Future work should examine long-term outcomes associated with cholinesterase inhibitor discontinuation in this population.

All Authors: Laura Maclagan, ICES; Susan Bronskill, ICES; Jun Guan, Institute for Clinical Evaluative Sciences; Michael Campitelli, ICES; Nathan Herrmann, Sunnybrook Health Sciences Centre; Kate Lapane, University of Massachusetts Medical School; David Hogan, Universi

Objectives: A small proportion of the PEI population (5%) has been found to account for almost three-quarters of healthcare spending. Our research aims to to identify the main drivers of high cost healthcare use to identify key actionable areas to target in order to improve care to this population.

Approach: A mixed methods approach was employed utilizing both administrative health data and qualitative interviews with patients and health care providers. Services examined included acute inpatient hospitalizations, emergency department visits, prescription drugs, physician visits, and ground ambulance services. Patterns in healthcare usage in the top 5% of healthcare users were examined in the data. To provide depth to the analysis, an institutional ethnography was conducted to open up the private realm of these individuals' lived-experiences in accessing health care services and explicate how their experiences are organized to happen as they do.

Results: Inpatient hospital costs accounted for a significant proportion of costs among high cost users. A deeper examination of this data revealed a large proportion of days spent in hospital for this population when the intensity of care that a hospital is designed to provide was no longer required (alternate level of care). Chronic disease prevalence and neighbourhood level material and social deprivation were both associated with high cost healthcare use. Further trends were explored, and qualitative interviews are underway to gain depth of understanding. Preliminary analyses of these interviews will be presented.

Conclusion: This mixed methods study identifies key, actionable areas to help reduce costs and improve the quality of life of this population of high cost users.

All Authors: Mary-Ann MacSwain, Centre for Health and Community Research; Michelle Patterson, Centre for Health and Biotech Management Research; Juergen Krause, University of Prince Edward Island; Robyn Kydd, Centre for Health and Community Research, UPEI; Hailey Arse

ID: 505
Author: Dr. Alyson Mahar
Title: Current knowledge and needs of Canadian paediatricians delivering healthcare to children and youth in military families
Type of Abstract: Oral

Objectives: Many healthcare professionals and policy-makers are unaware that military families are provided healthcare through the provincial system, and are unfamiliar with their unique healthcare challenges. This work sought to document the knowledge, experience, and professional development needs of Canadian paediatricians in the care of children and youth in military-connected families.

Approach: We performed a one-time, nationally targeted survey of Canadian paediatricians, including generalists and subspecialists, through the established Canadian Paediatric Surveillance Program. Questions were focused in four areas: knowledge of Canadian Armed Forces families, how membership in a military family affected care, confidence in providing care to this population, and training or educational needs. Descriptive statistics are reported.

Results: 2,799 participants received the survey; 764 (27%) responded. 44.5% were paediatric subspecialists, 78.1% practiced in urban settings, and 58.9% had an academic affiliation. One third of respondents incorrectly believed that the federal military healthcare system provides healthcare services to children/youth in military families, and half were unsure. Almost one quarter did not believe that identifying a child/youth as part of a military family informed patient care, while almost a minority believed it warranted further specific social or health history screening. Over half felt inadequately prepared to care for children/youth in military families. There was strong evidence that additional resources, information, or training would benefit the care of military families, including a better understanding of risks and the services available to military families.

Conclusion: Canadian military families experience a constellation of risk factors that may negatively affect their health and access to services. These data provide clear evidence of a need to further military literacy amongst healthcare professionals, and provide clear direction for the development of enhanced resources and supports within the healthcare system.

All Authors: Alyson Mahar, Manitoba Centre for Health Policy; Heidi Cramm, Queen's University; Linna Tam-Seto, Queen's University; Anne Rowan-Legge, University of Ottawa

ID: 519
Author: Dr. Tannaz Mahootchi
Title: Capacity Planning for Community-Based Dementia Health Care Services in Ontario; Using Administrative Health Care Databases and Agent-Based Simulation Methods
Type of Abstract: Oral

Objectives: Prevalence of dementia in Ontario is expected to reach 220,000 by 2020, with 65% of this population living in the community. Keeping persons living with dementia (PLwD) adequately supported at home requires expansion of community services capacity and innovative models of care.

Approach: PLwD between 2010 and 2015 in Ontario were identified using multiple administrative healthcare databases. Person-level data was used to establish personal and clinical attributes of this population, follow their health services usage longitudinally, and characterize transitions among care settings. An agent-based simulation model was developed using the results of these analyses and evidence from literature. The model is used to estimate the capacity requirements, the resulting changes to PLwD transitions from the community, and their health service utilization for the planned implementation of care-partner education and supports and adult day programs.

Results: If no programmatic interventions are applied, by 2020 the total number of PLwD awaiting their first LTC placement will increase by 80%, over 2015 estimates. However, if education and support programs for care-partners were to be implemented, we estimate this figure can be reduced by 32 percentage points to 48%. This is a prominent effect, given that PLWD awaiting their LTC placement use significantly more healthcare resources, including hospitalizations, emergency department visits, and homecare services, than those who are not. To realize the effects of such an intervention, Ontario needs to build capacity for 71,507 monthly counseling hours and provide monthly support groups for at least 34,304 persons by 2020.

Conclusion: Simulation models and other advanced analytics approaches calibrated at the local level is utilized to understand future demands and provide insights on the potential effects of programmatic interventions on the healthcare system while sizing the capacity needs at the system level.

All Authors: Tannaz Mahootchi, Cancer Care Ontario; Dallas Seitz, Queen's University; Natalie Warrick, Cancer Care Ontario; Ali Vahit Esensoy, Cancer Care Ontario; Danielle Shawcross, Cancer Care Ontario

ID: 579
Author: Ms. Elizabeth Manafo
Title: Researcher and Patient Competencies For Meaningful Patient Engagement in Health Research: Are you ready?
Type of Abstract: Oral

Objectives: While there is a growing appetite for both researchers and patients to engage in health research, how can either stakeholder be sure they are ready? The purpose of this research was to explore the existing evidence about the competencies (i.e., knowledge, skills, attitudes, and beliefs) needed for meaningful patient engagement.

Approach: We conducted a systematic scoping review to identify engagement competencies within five domains: Communication, Interpersonal or Individual, Team Function, Patient-centeredness, and Leadership, as well as in relation to the six "Levels of Patient and Researcher Engagement in Health Research". To better ensure that we captured a broad range of evidence about this emerging phenomenon, we included academic and public literature in our analysis.

Results: This rapid review yielded 43 records. Notably, there was a greater focus on researcher competencies compared to patient competencies for patient-oriented research. Additionally, competencies do not exist in isolation and competencies in the Communication, Interpersonal or Individual, and Team Function domains were most frequently cited as critical and precursory for meaningful engagement in research. The fact that fewer competencies at the deeper levels of engagement (i.e., Collaborate, Lead/Support) were discussed in the literature suggests that these competencies need attention through training and education opportunities. Leadership competencies are particularly important within the context of promoting partnerships and patient autonomy. Re-framing stakeholder roles can help move us towards a more participatory model of research activity, one that understands patients as 'experts' of their own situation.

Conclusion: The dual roles of researcher and patient enacted by one individual requires a close investigation of the competencies needed. Competencies which are less inherent need greater 'upstream' attention so that patients and researchers are ready to engage meaningfully in health research.

All Authors: Ping Mason-Lai, Alberta SPOR SUPPORT Unit, Patient Engagement Platform ; Virginia Vandall-Walker, AbSPORU and Athabasca University; Elizabeth Manafo, Patient Engagement Platform, SPOR

ID: 466
Author: Dr. Roula Markoulakis
Title: Involving Families with Lived Experience in Mental Health and/or Addiction Service Design and Implementation
Type of Abstract: Oral

Objectives: The objective of this study was to produce a rich description of the experiences of families with lived experience (LE) of caring for a youth with mental health and/or addictions issues with respect to factors contributing to their meaningful engagement in mental health and addictions service design and implementation.

Approach: Through a qualitative study with a narrative approach, past and present Family Advisory Council members (n=8) of the Family Navigation Project were interviewed regarding their experiences and involvement with the design and implementation of this service. Participants were asked to tell the story of their involvement with the Family Navigation Project, in order to produce an account of the process and value of LE informing the development, implementation, and on-going operations of this family-focused community mental health and addictions service. Thematic Analysis was conducted on the transcribed interviews to identify salient themes pertaining to this involvement.

Results: Engaging LE in the development, integration, and on-going operations of a community mental health and addictions service involved commitment at the individual and program level, and comprised five themes: 1) Motivation, 2) Individual Member Engagement, 3) Group Development, 4) Embedded Value of LE in the Program, and 5) Validation. The continued involvement of individuals with LE was motivated by their past experiences in the mental health and addictions sector. Inclusion in personally and organizationally valuable projects contributed to their sense of engagement in the service. This engagement was also guided by the development of and changes in group structure and vision. Finally, individuals with LE valued their involvement, and felt engaged when their efforts and roles were acknowledged and reinforced at the program level.

Conclusion: As family-informed mental health organizations continue to grow, it is important to explore factors contributing to successful service implementation. These include an embedded commitment to the voice of LE in all levels of the program and a dedication to collaboration while ensuring individuals with LE are engaged and valued.

All Authors: Roula Markoulakis, Family Navigation Project; Divya Soni, Family Navigation Project at Sunnybrook; Staci Weingust, The Family Navigation Project; Anthony Levitt, The Family Navigation Project

ID: 66
Author: Ms. Holly Mathias
Title: "It's Part of My Survival": Navigating Access to Youth Mental Health Services and Supports in a Rural Nova Scotia Community
Type of Abstract: Oral

Objectives: Rurality is thought to be a barrier and facilitator of access to mental health services, yet little is understood from a rural Canadian youth perspective. How do youth living with mental health issues in rural Nova Scotia (NS) perceive and experience access to mental and emotional health services and supports?

Approach: Seven youth living with a mental health concern were recruited from a rural NS high school. Students shared their perceptions and lived experiences of accessing mental health services and supports in their community during a 45 minute face-to-face semi-structured interview at their high school. Interviews were audio-recorded and transcribed. Transcripts were coded using Atlas-TI. Analysis was approached from a modified grounded theory perspective. Rooted in community-based participatory research, two students with lived experiences from the same high school were hired as research assistants. They assisted with the creation of the interview guide and knowledge translation activities in the community.

Results: Based on preliminary analysis, it was found that youth living in rural NS experience many barriers to accessing mental health services and supports (i.e. transportation, privacy), although several opportunities for accessing support exist (i.e. familiarity). All youth had accessed a mental health service in their community; however, the majority were not satisfied with the service they had accessed due to limited options in their community. All students stated they rely on support from family and teachers, with very few relying on friends. All students identified the school as being a potential point for increased access to services and supports, despite having a limited knowledge of services currently offered in the school. Analysis will be completed by April 2018 and final themes will be presented.

Conclusion: This study contributes the voices of rural Canadian youth to the current dialogue on research and policy concerning access to mental health services. Along with identifying barriers and opportunities for access, this presentation will highlight youths' suggestions for improved access, and give insight on youth engagement in community-based research.

All Authors: Holly Mathias, Dalhousie University

ID: 506
Author: Dr. Deirdre McCaughey
Title: The Future State of Patient Engagement? Personal Health Information Use & Attitudes Towards Health
Type of Abstract: Oral

Objectives: In a momentous cultural shift, the healthcare industry has seen an increased emphasis on information transparency across all healthcare domains. One such facet of transparency is the idea that greater access to personal health information by patients will facilitate greater engagement in healthcare decision-making on the part of the patient.

Approach: Our study builds upon insights from the health behaviour and health communication literatures to develop hypotheses about the relationship between access and use of personal health information and health behaviours. This study explores how engaging individuals in their well-being may lead to better overall self-care. Using multivariable path analysis and data from the 2017 Health Information National Trends Survey (HINTS), this study investigates whether the use of personal health information is associated with positive, engaged preventative health behaviours, and if this relationship is mediated by patient confidence in their ability to care for themselves and self-perceived health status.

Results: We found that the use of health information worked indirectly on health activating behaviours. These behaviours (smoking tobacco, fruit consumption, vegetable consumption, and exercising) require an individual to internalize health information and act upon it, translating health attitudes into action. We also examined the role of two individual attitudes as potential mediators between health information use and health behaviours. The findings suggest individual attitudes about one's health in the form of self-assessed health status mediates the association between personal health information and the behaviours of not smoking and exercising. Individual attitudes act as a mediator of personal health information use and fruit and vegetable consumption when both confidence in one's ability to care for him/herself and self-assessed health status are considered simultaneously.

Conclusion: As the accessibility of health information continues to grow, it is incumbent on providers and healthcare systems to discern what patients need in the form of personal health information to optimize their engagement in care and wellness while balancing their capacity to effectively absorb such volume of information.

All Authors: Deirdre McCaughey, Cumming School of Medicine, University of Calgary; Kristine Hearld, University of Alabama at Birmingham; Larry Hearld, School of Health Professions; University of Alabama at Birmingham; Henna Budhwani, University of Alabama at Birmingh

ID: 238
Author: Dr. Rita McCracken
Title: The Five Types of Urban Family Doctors: The Implications of Style and Scope of Practice for Health Human Resources Planning
Type of Abstract: Oral

Objectives: There are approximately 1000 family doctors working in Vancouver; however, few details are known about their practice styles. As part of the Models and Access Atlas for Primary Care – Providence Health Care project (MAAP-PHC), we describe scopes and styles of practice for a sub-group of family doctors in Vancouver.

Approach: We developed a survey based on the MAAP study in Atlantic Canada, and adjusted the tool to match differences in local practice patterns and terminology. We administered the online survey to all members of PHC Department of Family Medicine in spring 2016 and achieved an 86% response rate (254/295). We categorized practice style into five distinct groupings and compared features across respondent groups, including personal and practice location characteristics, hospital and teaching work, payment and appointment characteristics, and scope of practice. We discuss the implications of styles of practice and associated characteristics on health human resources policy and planning.

Results: Survey participants identified their practice style as either "continuous community-based primary care" (CCBPC) [75%], "hospital or facility-based care" [18%], or "locum only" [7%]. We further divided the CCBPC category into 3 groups based on their self-reported patient panel size: focused-practice (<500) [37%], mixed-practice (500-1000) 21%], and classic GP (>1000) [41%]. While we found diversity in the scope and style of practice across the give groupings, the medians of self-reported weekly work hours of all groups were similar. Newer family physicians (12 years or less away from medical school graduation) are moving away from the Classic GP characteristics (single location practice, fee for service payment) and are more likely to work at multiple locations, including specialty clinics, and be engaged in clinical supervision and teaching.

Conclusion: Urban family doctors have diverse scopes and styles of practice and the classic GP model appears to be declining in popularity. Primary care health human resource policy and planning will need to evolve to account for and respond to the new variety of actual work patterns among GPs.

All Authors: Rita McCracken, Providence Healthcare (PHC); Lindsay Hedden, Simon Fraser University; Nardia Strydom, Vancouver Coastal Health & Providence Health Care; Kasra Hassani, Centre for Health Services and Policy Reserach; Gurkirat Randhawa, Providence Health C

ID: 458
Author: Dr. Terrence McDonald
Title: The Association Between General Practitioner (GP) Patient Volumes and Health Outcomes
Type of Abstract: Oral

Objectives: Objective 1. To describe the practice patterns and demographics of high volume GPs in Alberta. Objective 2. To model the risk of an emergency department visit or hospitalization (i.e. treatment failure) for patients with one or more chronic conditions by GP patient volume adjusting for other variables.

Approach: GP claims (2011-2016) from Alberta Health have been linked to physician demographics from the College of Physician and Surgeons of Alberta, the National Ambulatory Care Reporting System, Discharge Abstract Database, and longitudinal data set for Clinical Risk Groups for the period 2011-2016. Phase I identified predictors of high volume GPs. Phase II will use hierarchical logistic regression to model the odds of any treatment failure by volume, controlling for patient demographics and burden of illness.

Results: Phase I results indicate high volume practitioners tended use fewer service codes representing time-intensive care, were typically older, male, worked part-time, and tended to practice in Northern Alberta. International Medical Graduates (IMGs) were also substantially more likely to be a high volume GP. Early Phase II results indicate two cohorts of high volume GPs likely exist in Alberta (rural/urban). Work to further characterize high volume GPs, risk adjust their patients and explore the relationship between treatment failure(s) and volume of patients seen per day and GP practice characteristics is underway. Further results are expected shortly.

Conclusion: There are differences in high volume providers based on geographic region, years in practice, sex, and IMG status.

Pending results will inform physician supply physician supply and remuneration policies that might optimize patient outcomes, and inform whether a capping policy (limiting the patients seen by GP/day) is of value in Alberta.

All Authors: Terrence McDonald, Deprtament of Family Medicine, University of Calgary; Lee Green, University of Alberta - EnACt; Kerry McBrien, University of Calgary; Paul Ronksley, University of Calgary; Judy Seidel, Alberta Health Services; Alka Patel, Alberta Healt

ID: 539
Author: Dr. Linda McGillis Hall
Title: A Comparative Analysis of the Change in Pass Rates on the Nurse Licensing Exam for Canada's Nurses: Implications for Health Human Resources
Type of Abstract: Oral

Objectives: A considerable decline in the pass rate from the previous exam has resulted from Canada's adoption of a US-based nurse licensing exam in 2015. A comparison of pass rates was conducted given stakeholder concern about the health human resources workforce implications of these changes.

Approach: A comparison of pass rate data for 2015 and 2016 was conducted using publicly available data released by the Canadian Council of Registered Nurse Regulators (CCRNR). The overall proportion of newly graduated Canadian nursing students writing the examination who passed at year-end, and the proportions who passed at each of first, second, third and all additional attempts were compared between years using a z-test.

Results: A statistically significant increase in pass rates from 2015 to 2016 was found for first-attempt examination writers (69.7% vs. 79.9%; p<.001). However, the overall year-end pass rates declined significantly between the two years (92.8% in 2015 vs. 88.9% in 2016; p<.001). Further analysis demonstrated that over three times more students in 2015 went on to re-write the examination a second and third time than in 2016, resulting in a substantial downward shift in the entry-level nursing workforce in 2016. Specifically, in 2015, 7.1% (n=642) of exam writers left the profession by the end of the year after failing to pass the exam, while in 2016 this increased to 11.1% (n=1,030) of writers leaving.

Conclusion: A consistent increase in number of nurses entering the profession has occurred in Canada in recent years. However, the adoption of a US licensing examination may be affecting retention of new nurses, as well as the available supply of nurses in Canada. Further monitoring of yearly pass rates is recommended.

All Authors: Linda McGillis Hall, Lawrence S. Bloomberg Faculty of Nursing, University of Toronto; Michelle Lalonde, University of Ottawa, School of Nursing; Janice Feather, University of Toronto, Faculty of Nursing ; Sarah Brennenstuhl, University of Toronto, Facu

ID: 119
Author: Dr. Patrick McGowan
Title: Role and Effectiveness of Telephone Peer Coaching for Persons with Type 2 Diabetes.
Type of Abstract: Oral

Objectives: Four major aspects of diabetes peer coaching were investigated, specifically:1) feasibility and viability of recruiting, training and pairing peer coaches with patients; 2) whether peer coaching brought about improved outcomes; 3) whether covariates (e.g., sex & age) influence program effectiveness; and 4) how the coaching process works.

Approach: The "thick description" process recording method was used to investigate the question relating to the feasibility and viability of recruiting and training peer coaches and then pairing them with persons with type 2 diabetes who were experiencing difficulty managing. Quantitative research was used to investigate effectiveness. Both clients and coaches completed questionnaires containing 14 outcome measures at baseline, and at 6 and 12 months. Grounded theory qualitative research methodology was used to acquire a comprehensive understanding the process of peer coaching.

Results: Patients improved in 6 areas from baseline to six months and these improvements were maintained at 12 months, namely: A1C (-9%); patient activation (+15%); diabetes empowerment (+10); self-efficacy (+23%); depression (-24%) and communication with physician (+22%), and these outcomes were not influenced by covariates of sex, age, education level, and the number of chronic health conditions participants were experiencing. The remaining outcome measures (i.e., self-ratings of health, fatigue and pain, medication adherence, and health literacy did not reach statistical significance, however changes were all in the predicted direction. A description of the role of the diabetes coaches emerged in five main themes: 1) teaching self-management skills; 2) providing accountability; 3) giving encouragement; 4) pointing to resources; and 5) clarifying boundaries.

Conclusion: This study found that a pragmatic low-cost telephone peer coaching intervention assisted persons with type 2 diabetes to improve healthy behaviours and better self-manage their diabetes. The central feature of the program is that persons who have a chronic condition themselves can acquire training and then help others.

All Authors: Patrick McGowan, School of Public Health, University of Victoria; Frances Hensen, Fraser Health ; Sherry Lynch, University of Victoria

ID: 452
Author: Ms. Seanna McMartin
Title: Exploring drivers and variations in positive care experiences in Canadian hospitals
Type of Abstract: Oral

Objectives: Capturing the patient perspective of his/her care experience during the hospital stay is important to inform the quality of health service delivery. The overarching goal of this work is to report comparative results from across Canada to inform quality improvement initiatives in health service delivery and support patient-centred care.

Approach: The Canadian Patient Experiences Survey – Inpatient Care (CPES-IC) is a standardized national survey that enables patients to provide feedback about the quality of care they received during their hospital stay. A retrospective analysis from over 50,000 surveys over a period of 2 years across 4 provinces (ON, NB, MB and AB) will be performed. Patient-reported experience measures (PREMS) will be summarized and weighted, where necessary, to account for differences in sample design. Polychoric correlations will be calculated to identify potential drivers of PREMS. Where possible, data will be linked with administrative data to examine possible relationships with clinical outcomes.

Results: Comparisons of PREMs by hospital peer group, region and province will be reported to highlight how care experiences vary across different patient characteristics. Comparative information is intended to help foster quality improvement and to facilitate sharing of best practices. Initial results have shown overall patient experience varies by demographic characteristics such as age, self-reported ethnicity, self-reported education level, and self-reported physical and mental health status. The identified drivers of overall care experiences will be explored. Early findings highlight variations across hospitals and regions on overall and composite measures and that key drivers of overall experience include measures related to internal coordination of care, emotional support, information about condition/treatment and communication with nurses. Results exploring possible relationships between PREMS and clinical outcomes will also be showcased.

Conclusion: This is the first analysis of results from the survey and will provide valuable insight into the drivers of positive care experiences and opportunities for improvement. The results will help inform the use of patient experience data to support patient-centered care and inform quality improvement initiatives.

All Authors: Seanna McMartin, Canadian Institute for Health Information; Jeanie Lacroix, CIHI; Doreen MacNeil, CIHI

ID: 86
Author: Dr. Paul Moayyedi
Title: Patient Engagement and Involvement of a Broader Range of Health Care Professionals Changes Clinical Guideline Decisions: A comparison of two Irritable Bowel Syndrome (IBS) clinical guidelines using the same data
Type of Abstract: Oral

Objectives: The objective is to determine whether a more diverse group of healthcare professionals and a patient representative in a consensus group resulted in significant differences between the IBS clinical practice guidelines developed by the Canadian Association of Gastroenterology (CAG) and the American College of Gastroenterology (ACG).

Approach: The ACG consensus group included academic gastroenterologists while the CAG consensus group also included family physicians, a psychiatrist, and psychologist. Furthermore, given the CAG's partnership with the IMAGINE SPOR Network, it also included a patient representative who participated in all aspects of the guidelines development process. Both CAG and ACG used the GRADE system to evaluate the quality of evidence, had one methodologist in common, and were presented with the same data for interpretation. The guidelines from the two groups were matched by topic and then compared to determine any differences with the final recommendations.

Results: A comparison between the two sets of guidelines revealed many similarities but there were instances where the groups reached different treatment recommendations. In particular, the Canadian guidelines were broader in scope, including recommendations on diagnostic testing and alternative therapies. Both guidelines evaluated pharmacological interventions for IBS but again differences were found. The US guidelines gave a strong recommendation for lubiprostone whilst the Canadian guideline gave this drug a conditional recommendation. Furthermore, while the American guidelines suggested the use the non-absorbable antibiotic rifaximin for reduction in global IBS symptoms as well as bloating in non-constipated IBS patients, the Canadian consensus group chose not to make a recommendation (neither for nor against) offering diarrhea-predominant IBS patients one course of rifaximin therapy to improve symptoms.

Conclusion: Input from a more diverse group of healthcare professionals and the inclusion of the patient's perspective may have been an explanation for the differing interpretations of the same data in an IBS guideline. Taking a wider perspective resulted in more cautious recommendations in some instances.

All Authors: Paul Moayyedi, McMaster University/Hamilton Health Sciences; Aida Fernandes, IMAGINE SPOR Network; Paul Sinclair, Canadian Association of Gastroenterology; Christina Korownyk, University of Alberta; Stephen Vanner, Kingston General Hospital; Sasha Sidani,

ID: 134
Author: Dr. Ebele Mogo
Title: Testing integrated knowledge translation processes to improve the participation of children with disabilities in British Columbia in physical activity
Type of Abstract: Oral

Objectives: To develop an integrated knowledge translation to policy approach. To improve the methods to engage community and clinical partners in discussing solutions related to leisure promotion for children with disabilities, tailor and convey information about participation in leisure to policy makers and test knowledge translation to policy interventions

Approach: We used a mixed methods approach to identify key stakeholders, conducted a rapid review of the research literature on the priority areas identified by stakeholders, developed a targeted policy brief, conducted a policy dialogue and analyzed the effectiveness of the knowledge translation strategy. An open ended qualitative questionnaire and Likert type scale survey was administered to participants before and after the policy dialogue to understand their preferred formats for engaging with research data. We also explored participants' experiences of the dialogue and their intent to act on the information gained

Results: Community grassroots organizations were highly engaged in the process and were able to convey local experiences to relate to research evidence. We identified policy, individual and organizational facilitators and barriers influencing the use and application of research evidence to policy in childhood disabilities. We also identified stakeholders' preference on content, format and the presentation of policy information

Conclusion: Dissemination of research alone is not sufficient for influencing policy. Impacting population health requires not only evidence, but translation strategies that effectively address facilitators and barriers at the individual and organizational levels, and the context specific information brought by different stakeholder groups.

All Authors: Ebele Mogo, McGill University; Keiko Shikako-Thomas, McGill University; Jonathan Lai, McGill University

ID: 609
Author: Dr. Frances Morton-Chang
Title: Integrated care as boundary spanning: Organizational workarounds in the delivery of community-based primary health care
Type of Abstract: Oral

Objectives: The fractured and siloed nature healthcare in Ontario can pose challenges for integrated care, with implications for addressing the complex needs of growing populations of seniors. Here we explore the efforts of three organizations to provide integrated community-based primary health care (CBPHC) to support the independence of the frail elderly.

Approach: As part of a wider CIHR-funded multi-jurisdiction comparative case study (iCOACH project) this research investigates three CBPHC organizations in Ontario, each with distinctive approaches to coordinating a continuum of primary health care and support services for their clients.

We purposively conducted 22 semi-structured interviews, some with two participants. Our 27 informants were comprised of senior leadership from the organizations, and key partners (e.g., government, policy advisors, sister agencies) all with insight into the policy environment and political factors impacting on the ability of these types of models to develop, sustain and scale wrap-around health and social care programs for seniors.

Results: In Ontario, organizations striving to offer integrated CBPHC work in complex and rapidly changing policy environments that result in the need for proactive and reactive strategies to overcome system challenges. Four common strategies include:

1. Building organizational "capacity" to coordinate a continuum of care through varied and complex partnerships, linkages, mergers and service arrangements.
2. Pursuing multiple and diverse funding sources and opportunities to overcome historical funding patterns and build greater capacity and be resilient in a dynamic and often volatile policy
3. Performing well and measuring what is required to show value to funders and the individuals served while noting the information paints an incomplete picture.
4. Increasing political profile and associated social/political capital.

Conclusion: With no formal mechanisms to ensure or support efforts toward greater integration of care, CBPHC organizations struggle with overburden and workarounds to maintain cohesiveness of care. The creation of boundary-spanning policy frameworks to better identify and integrate elements identified as areas of consistent challenge may help to move CBPHC forward.

All Authors: Frances Morton-Chang, University of Toronto; Allie Peckham, Arizona State University; Fiona Miller, University of Toronto; A. Paul Williams, University of Toronto

ID: 364
Author: Mr. Sergei Muratov
Title: Incident Senior High Cost Users in Ontario: Predictors of Urgent Index Hospitalizations
Type of Abstract: Oral

Objectives: To identify the diagnoses associated with the most costly urgent index hospitalizations (IH) among incident senior high-cost users (HCUs), and to identify health care and health system factors associated with them.

Approach: We conducted a retrospective, population-based cohort study using administrative healthcare records. Incident senior HCUs were defined as Ontarians age ≥66 years who were in the top 5% most costly healthcare users during fiscal year 2013 (FY2013) but not during fiscal year 2012 (FY2012). An IH was defined as the first hospital admission during FY2013 with no hospitalizations in preceding 12 months. IH costs (expressed in CAD2013) were calculated according to most responsible ICD-10 diagnosis codes (MRDx). The costliest diagnoses were defined as the top 25th percentile by costs. Multivariate logistic regression was used to identify independent predictors of urgent IHs.

Results: Of all incident HCUs (n=175,847), 76% had an IH in FY2013, with the total cost CAD1.64 billion. Urgent admissions accounted for 71% of IHs at a cost of CAD1.2 billion. The five costliest MRDx were: acute myocardial infarction (8%), fracture of femur (7%), cerebral infarction (4.5%), heart failure (3.5%), and chronic obstructive pulmonary disease (3.2%).

Across all 5 conditions, less outpatient care (such as physician and home care visits) in FY2012 was associated with higher odds of IHs (aORs range: 0.57-0.99). Most prominently, the odds were 28 to 43% lower in patients seen by a geriatrician. Patients with no primary care provider enrollment had higher odds of IHs (aORs range: 1.09-1.57). The odds were lower among residents of long-term care facilities (aORs range: 0.10-0.35).

Conclusion: A small number of diagnoses, each associated with chronic remediable risk factors, accounted for a large portion of inpatient costs associated with urgent IHs among senior HCUs. Receiving more outpatient care, enrollment with a primary care provider, and living at a long-term care facility had a protective effect.

All Authors: Sergei Muratov, McMaster University; Justin Lee, McMaster University; Anne Holbrook, McMaster University; Andrew Costa, McMaster University; Michael Paterson, Institute for Clinical Evaluative Sciences (ICES); Jason Robert Guertin, Université Laval; Lawre

ID: 564
Author: Mr. Sergei Muratov
Title: Healthcare Costs and Mortality Among Incident Senior High Cost Healthcare Users (HCU) in Ontario: Regional Variation and Care Efficiency
Type of Abstract: Oral

Objectives: To describe the regional variation in health care costs and outcomes and identify regions with efficient care across Ontario's Local Health Integration Networks (LHIN) among senior incident HCU and non-HCU.

Approach: Retrospective population-based matched cohort study of incident senior HCUs defined as Ontarians age ≥ 66 years in the top 5% most costly healthcare users in FY2013. HCUs were matched to non-HCUs (1:3) based on age, sex and LHIN. Primary outcomes were LHIN-based variation in total costs (composed of 12 cost components) and mortality during FY2013 measured by a coefficient of variation (CV, %). Outcomes were adjusted for age, sex, Aggregated Diagnosis Groups, and low-income status. Two-part regression models were used to account for zero values. To indicate care efficiency, total health expenditures for each LHIN were plotted against mortality.

Results: We studied 703,388 subjects (incident HCU=175,847, non-HCU=527,541). Unadjusted CV for total costs was low: 3.4% (HCU) and 5.5% (non-HCU). Greater variation was observed for specific cost components, with unadjusted CV highest for complex continuing care at 45.1% among HCUs and 241.5% for rehabilitation costs among non-HCUs. Unadjusted CV for mortality was 6.8% for HCUs and 20.6% for non-HCUs.

Upon adjustment, CV decreased for all cost components and mortality in both cohorts. Remaining post-adjustment variation was however greater among non-HCUs: for costs, adjusted CV was the highest for long-term care at 7%; for mortality, adjusted CV was at 6.3%.

Central West LHIN demonstrated the highest care efficiency in both cohorts. Efficiency of care in Toronto Central (HCUs) and Central (non-HCUs) LHINs was among the lowest.

Conclusion: Risk adjustment is important when examining regional variation in health care costs and outcomes. Lower regional variation amongst senior HCUs in Ontario suggests more equitable care compared to non-HCUs. LHINs with lower efficiency of care deserve more study with respect to local care practices and supply factors.

All Authors: Sergei Muratov, McMaster University; Justin Lee, McMaster University; Anne Holbrook, McMaster University; Andrew Costa, McMaster University; Michael Paterson, Institute for Clinical Evaluative Sciences (ICES); Jason Robert Guertin, Université Laval; Lawre

Objectives: Individuals with a chronic disease use the health care system more frequently and have higher health care expenditures than those without a chronic disease. The objective was to examine the incidence of an individual's first chronic disease in relation to the adult life course (i.e. age-to-first chronic disease).

Approach: Ontario adults who completed one of the first six cycles of the Canadian Community Health survey were linked to administrative data starting January 1, 2000. Individuals were followed up until December 31, 2014 for the incidence of their first chronic disease: congestive heart failure, chronic obstructive respiratory disease, diabetes, lung cancer, myocardial infarction, and stroke. The cumulative incidence function of age-to-any first chronic disease was estimated by sex with death as a competing risk. The cumulative incidence function of each chronic disease was also examined separately to observe the timing of different chronic diseases during the life course.

Results: The cohort had 112,870 adults, 15.1% of which developed at least one incident chronic disease. The most common first chronic disease was diabetes and the least common was lung cancer. Women had a greater cumulative incidence of chronic disease until age 48 years, after which males had a greater cumulative incidence. By age 66.3 years, 50% of males had at least one of the six chronic diseases, which was 4.2 years earlier than females (70.4 years). By the end of the life course (i.e. 105 years), 85.6% of females and 86.6% of males had at least one chronic disease. Diabetes and COPD were more likely to occur earlier in the adult life course versus congestive heart failure, lung cancer, myocardial infarction and stroke.

Conclusion: This study uses a novel approach to examine the incidence of chronic diseases relative to the life course, and provides health policymakers with additional insight into the occurrence of chronic diseases for an aging population. Future research will examine the associations of modifiable lifestyle risk factors with age-to-first chronic disease.

All Authors: Ryan Ng, University of Toronto; Rinku Sutradhar, Institute for Clinical Evaluative Sciences; Zhan Yao, Institute for Clinical Evaluative Sciences; Walter Wodchis, University of Toronto; Laura Rosella, Dalla Lana School of Public Health, University of Toro

Objectives: Ductal carcinoma in situ (DCIS) is benign in most cases but surgery and adjuvant therapy are standard. As a result, patients experience confusion and anxiety similar to those with invasive breast cancer. Person-centred care (PCC) improves health care experiences and outcomes. This study explored how to improve PCC for DCIS.

Approach: Clinicians who manage DCIS were interviewed by telephone about communication and decision-making practices and challenges, and the support they or patients needed to achieve PCC. Patients treated for DCIS were asked during in-person focus groups about communication and decision-making expectations and experiences, and how PCC could be improved in the future for other patients. Sampling for both groups was purposive by province; clinicians were sampled by specialty and referral from those interviewed. Themes were analyzed in duplicate using constant comparative technique, described using a published framework of PCC, and compared to identify similarities within and across clinician and patient groups.

Results: Forty-six clinicians from 6 provinces were interviewed. Challenges included misperception of risk among patients, need for multiple consultations to achieve understanding, and lack of patient information or supportive services.Recommendations included educational and communication aids for patients, and patient navigators. During focus groups, 35 DCIS patients from 5 provinces reported variable understanding of the distinction between DCIS and invasive cancer. Involvement in treatment decision-making varied between sites; decisions were largely based on clinician recommendations, and patients felt uninformed about treatment risks and outcomes. Patients desired greater psychological support, information about self-management, and longer-term follow-up. Clinicians said they felt equipped to handle discussions with DCIS patients, yet most patients said they lacked support and information needed from their clinician.

Conclusion: Patient and clinician DCIS communication experiences differed. However, both groups recommended informational and supportive care resources for patients. The findings, detailed by a PCC framework, can be used by clinicians and health care managers to improve PCC for DCIS, and by researchers to evaluate PCC interventions for DCIS.

All Authors: Bryanna Nyhof, University Health Network; Anna Gagliardi, ; Frances Wright, Sunnybrook Health Sciences Centre ; Nicole Look Hong, Sunnybrook Health Sciences Centre; Gary Groot, University of Saskatchewan; Pamela Meiers, University of Saskatchewan; May Lyn

ID: 296
Author: Ms. Lucia Otero Varela
Title: Effectiveness of interventions for improving inpatient electronic health record documentation: A Systematic Review
Type of Abstract: Oral

Objectives: Despite its widespread and increased use, the quality of electronic health records (EHRs) needs improvement. Therefore, the purpose of this systematic review was to assess the effectiveness of different interventions seeking to improve EHR documentation within an inpatient setting.

Approach: To identify relevant experimental, quasi-experimental and observational studies, a search strategy was developed based on elaborated inclusion/exclusion criteria, using the main themes of the topic of interest: EHR, documentation, interventions, and type of study. Three databases, Cochrane, Medline, and EMBASE, were searched. Study quality assessment and data extraction from selected studies were performed using a Downs and Black and Newcastle-Ottawa Scale hybrid tool, and a REDCap form, respectively. Data was then analyzed and synthesized in a narrative semi-quantitative manner.

Results: An in-depth search of the identified databases, grey literature and reference lists, revealed a final 20 studies for inclusion in this systematic review. Due to high heterogeneity in study design, population, interventions, comparators, document types and outcomes, data could not be standardized for a quantitative comparison. However, statistically significant results in interventions and affected outcomes were further presented and discussed. 'Education' and 'Implementing a new EHR Reporting System' were the most successful interventions, based on the number of studies that significantly improved EHR documentation. When implementing two or more interventions, more outcome measures were affected. There was no association between study quality and study design or number of interventions used. Only one of the 20 studies found EHR documentation worsened with the interventions used.

Conclusion: Interventions implemented to enhance EHR documentation are highly variable and require standardization. Emphasis should be placed on this novel area of research to improve communication between healthcare providers, enhance continuity of care, reduce the burden in health information management, and to facilitate data sharing between centers, provinces, and countries.

All Authors: Lucia Otero Varela, University of Calgary; Natalie Wiebe, University of Calgary; Hude Quan, University of Calgary; Paul Ronksley, University of Calgary; Daniel Niven,

ID: 48
Author: Ms. Karen Pacheco
Title: Where are all the Veterans? A population-based analysis of length of stay in nursing homes in Ontario, Canada
Type of Abstract: Oral

Objectives: Little is known about Canadian Veterans' use of long term health care and personal support services. The objective of this study was to describe the characteristics of Veterans who are in nursing homes in Ontario, Canada, and to estimate their length of stay (LOS) in these facilities.

Approach: A prospective, population-based study. The study cohort is newly admitted (n=26,009) nursing home residents (April 2010 – March 2013), who were classified as Veterans if they were admitted into The Perley and Rideau Veterans' Health Centre or if Veteran Affairs Canada was responsible for paying for their care, as indicated in the Continuing Care Reporting System (CCRS). The primary outcome was LOS (in days) in nursing homes. We estimated a Generalized Linear Model to examine the effect of Veteran status, age, sex, marital status, geography, morbidity, functional capacity, and Changes in Health, End-Stage Disease, Signs and Symptoms Scale on LOS.

Results: Of the 26,009 residents, only 1.2% were Veterans. In general, Veterans were older (56.8% were aged 90 and older), tended to be male (87.5%), and lived in urban areas (83.5%). Chronic health conditions that were prevalent among our Veteran cohort were dementia (47.8%), depression (36.0%), congestive heart failure (25.4%), stroke (23.2%), chronic obstructive pulmonary disease (22.9%) and cancer (19.5%). Without adjusting for confounding factors, the average LOS among Veterans was 377 days (SD=514 days); this was 168 days fewer than non-Veterans (Mean=546 days, SD=564 days) on average. After controlling for age, sex, geography, chronic conditions, functional and cognitive capacity, Veteran status remained significant in its impact on LOS, where Veterans spent approximately 87 fewer days compared to non-Veterans (RR=0.84, $p<0.01$).

Conclusion: After controlling for confounding variables, Veterans had significantly lower LOS in nursing homes. Given the availability of additional financial support and access to home supports through Veterans Affairs Canada, we hypothesize that Veterans may be able to stay longer in the community and thereby reduce their LOS in nursing homes.

All Authors: Karen Pacheco, The Ottawa Hospital; Robert Talarico, ICES uOttawa; Amy Hsu, Bruyère Research Institute; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Heidi Sveistrup, Bruyère Research Institute

ID: 234
Author: Mr. Michael Paille
Title: Clinical mental health and pharmaceutical characteristics of individuals with an alcohol use disorder
Type of Abstract: Oral

Objectives: To describe the clinical mental health characteristics of those individuals with an alcohol use disorder (AUD) who received a prescription for acamprosate, naltrexone, or disulfiram – prescription drugs used to help manage withdrawals or cravings for alcohol – and to identify the medical specialty most likely to prescribe these medications.

Approach: 53,556 individuals with an AUD (i.e. with a mental and/or physical health diagnosis due to harmful alcohol consumption) were identified using administrative data in the Manitoba Population Research Data Repository between April 1, 1990 and March 31, 2015. 493 of these individuals received a prescription of interest between April 1, 1996 and March 31, 2015. Individuals with a prescription dispensed for these drugs (users) were age- and sex-matched to individuals with an AUD who did not have a prescription dispensed (non-users). T-tests and logistic regression models identified statistically significant differences between the two groups.

Results: Users had 2.40 (95% CI 1.98 – 2.90) times the odds of having a comorbid mood or anxiety related diagnosis at the time of their AUD diagnosis, after adjusting for age and sex. In the one year prior to their AUD diagnosis, 74.8% of users and 54.4% of non-users had a mental health related ambulatory visit ($p<0.0001$). Additionally, 16.5% of users and 11.4% of non-users were dispensed a selective serotonin reuptake inhibitor, a class of antidepressant ($p<0.0001$), and 14.6% of users and 5.6% of non-users were dispensed sedatives and anti-anxiety medications ($p<0.0001$). Finally, the majority of dispensed prescriptions for an AUD came from general practitioners from urban centers (53.6%), followed by psychiatrists (22.3%).

Conclusion: Drug therapies to aid in the recovery from AUD are being underutilized. Diagnosis of and treatment for mental health disorders is more common among those dispensed these medications. Programs that study clinicians' use of AUD-targeted drug therapies should be considered, while psychiatric services in addiction care require significant improvement.

All Authors: Michael Paille, University of Manitoba; Nathan Nickel, University of Manitoba; Christine Leong, University of Manitoba; James Bolton, University of Manitoba; Geoffrey Konrad, University of Manitoba; Heather Prior, Manitoba Centre for Health Policy; Leonar

ID: 118
Author: Mr. Steve Patterson
Title: Factors associated with entering facility-based long-term care in Nova Scotia
Type of Abstract: Oral

Objectives: To identify what factors are associated with entering facility-based long-term care (LTC) in Nova Scotia using the Andersen and Newman framework of health services utilization.

Approach: InterRAI minimum data set home care (MDS-HC) assessments were extracted for all publicly funded continuing care clients in Nova Scotia with an active care plan on May 4, 2017. Clients were stratified based on whether (n = 1,084) or not (n = 11,844) they were waiting for placement in a LTC facility. Logistic regression was used to identify what assessment items (selected apriori based on the Andersen and Newman framework) were associated with entering LTC. Individual assessment items were used in place of outcome scales to permit a detailed understanding of the factors associated with entering LTC.

Results: The Andersen and Newman framework divides the factors that influence health service use into three categories: predisposing factors (socio-cultural characteristics prior to illness), enabling factors (the logistical aspects of obtaining care), and need factors (functional and health needs).

Within each of these categories, the factors that had the greatest influence on entering LTC in NS were:

Predisposing factors: Age; Whether the client lives with their informal caregiver.

Enabling factors: Whether the client has an informal caregiver; Whether the informal caregiver is distressed; Geographic zone (entering LTC is more likely in some geographic zones than in others).

Need factors: Difficulty with instrumental activities of daily living (IADLs), particularly managing medications; Diseases, particularly dementia.

Conclusion: Identifying the factors associated with entering LTC may help in designing policy to keep people in the community. These could include expanding programs to alleviate caregiver distress, or adding more support for lighter-care IADL needs in addition to the more extensive support already available for heavier-care ADL needs.

All Authors: Steve Patterson, Nova Scotia Department of Health and Wellness; Andrew Knight, Nova Scotia Department of Health and Wellness

ID: 455
Author: Dr. Allie Peckham
Title: Conducting Environmental Scans for Comparative Policy Analysis
Type of Abstract: Oral

Objectives: This research was intended to develop a protocol for conducting environmental scans for comparative policy analysis. We established a framework for conducting a multi-jurisdictional (British Columbia, Ontario, Newfoundland and Labrador, Vermont, New York State), international study of policy programs to support people with dementia and their unpaid caregivers.

Approach: We developed a framework that guided our data collection and analysis. We were able to identify key policy and program elements of three policy programs in Ontario. The framework serves as an analytical tool for comparing policy programs in four other jurisdictions: British Columbia, Newfoundland and Labrador, Vermont and New York State. We adapted Rose's (2005) comparative policy methodology to conduct an environmental scan on three policy programs in Ontario: Health Links, Behavioural Supports Ontario, and First Link. The framework includes 10 dimensions: regulations; strategic frameworks; organizational setup; personnel; money; program objectives; program recipients; goals; information management; and leadership.

Results: The environmental scan on Ontario's policy programs revealed relevant information on important contextual elements policy levers and environmental contexts that need to be considered in conducting inter- and cross- jurisdictional policy comparisons. The framework not only offers a tool for policy comparison but also for informing the development of key-informant interview guides -- a critical step in completing a thorough environmental scan. The next phase in the Ontario arm of our study is to conduct interviews with key informants (policy makers, organizational leaders and administrators, and informal caregivers), using semi-structured interview guides based on the results of the environmental scan that was guided by the comparative policy analysis framework.

Conclusion: A comparative policy analysis framework that considers the contextual details about policy programs is a useful approach to conducting multi-jurisdictional comparative studies of policy programs.

All Authors: Allie Peckham, Arizona State University; Julia Ho, University of Toronto; Gregory Marchildon, University of Toronto

ID: 397
Author: Dr. Andrea Perna
Title: Access to Resources in the Community (ARC): Provider and Patient Perspectives of a Non-Clinical Patient Navigator in Primary Care.
Type of Abstract: Oral

Objectives: Community health and social resources (CR) can help individuals achieve better health and well-being; however, barriers often limit individuals' ability to access these services. Our objective is to determine the effectiveness of a non-clinical patient navigator in optimizing access to CR from the perspective of primary care providers and patients.

Approach: This is a single arm, prospective mixed methods feasibility study of a non-clinical patient navigator intervention in primary care (PC).

A non-clinical patient navigator trained to support patients overcome barriers to access CR was integrated in four PC practices in Ottawa, Ontario.

Participating providers and patients will be surveyed, and some interviewed, at the end of the intervention period to assess the services provided by the patient navigator.

A mixed methods approach using quantitative (i.e., surveys) and qualitative (i.e., interviews) data will be used to determine the effectiveness of the patient navigator intervention in PC.

Results: Providers' and patients' assessment of the patient navigator will provide insight on the feasibility and acceptability of a non-clinical patient navigator intervention in PC.

Specifically, post-intervention surveys and interviews will assess providers' overall satisfaction with the integration of the patient navigator in PC practices (e.g., navigator role and activities, scope of navigation services, communication (method and frequency) with PC team, etc.), and patients' acceptance and satisfaction with navigations services, including the quality and frequency of encounters and enhanced access to appropriate CR.

Final results will be presented.

Conclusion: The integration of a non-clinical patient navigator in PC practices is a novel approach to supporting a broad patient population with varying health and social needs. Results from this feasibility study will inform the implementation of a larger randomized controlled trial.

All Authors: Andrea Perna, Bruyère Research Institute ; Alain Gauthier, ; François Chiocchio, Professor, Organisational Behaviour and Human Resource Management; Darene Toal-Sullivan , Bruyère Research Institute ; Denis Prud'homme, Institut de recherche de l'Hôpital

ID: 166
Author: Dr. Yelena Petrosyan
Title: Health care costs and outcomes associated with surgical site infection: a retrospective cohort study
Type of Abstract: Oral

Objectives: This study aimed to: 1) examine the association between postoperative surgical site infection (SSIs) and mortality and hospital readmissions; and 2) estimate the attributable short-term and long-term costs of postoperative SSIs from the perspective of the healthcare system.

Approach: We conducted a retrospective cohort study of all patients at The Ottawa Hospital who underwent surgery and were monitored using the National Surgical Quality Improvement Program (NSQIP) between 2010 and 2016. The study exposure was defined as having any type of SSIs. The study outcomes included all-cause mortality and hospital readmission, and the average healthcare costs. All outcomes were estimated at 30 days, 90 days and 1 year following index date. We used multivariable Fine-Gray regression models to determine the association between the SSI and health outcomes, and generalized linear models to examine the association between SSI and healthcare costs.

Results: We identified 14,351 patients, including 795 patients with postoperative SSIs. Our analyses reveal that SSIs were associated with a significant increase in mortality at 1 year after surgery (HR=1.89, 95% CI 1.43-2.40), and hospital readmission at 30, 90 days and 1 year after postoperative discharge (HR=4.32, 95% CI 3.67-5.01, HR=2.74, 95% CI 2.35-3.12, and HR=2.20, 95% CI 1.96-2.50, respectively). The mean total incremental costs of SSIs at 30 days, 90 days, and 1-year following surgery amounted to C$13,684 (95%CI 11,480-15,972), C$21,965 (95% CI 19,865-24,279), and C$30,592 (95% CI 26,203-34,967), respectively. Acute hospitalization accounted the largest component of 1-year incremental costs associated with SSIs (55%), followed by outpatient care costs (11%), home care costs (11%) and complex continuing care (6%).

Conclusion: SSIs, and in particular deep SSIs, are associated with short- and long-term adverse health outcomes and healthcare costs. If a causal relationship can be demonstrated, then the results of this study can be used to model positive effects of preventive programs.

All Authors: Yelena Petrosyan, Ottawa Hospital Research Institute; Daniel McIsaac , Clinical Epidemiology, Ottawa Hospital Research Institute; Maclure Malcolm, Department of Anesthesiology, Pharmacology and Therapeutics, University of British Columbia; David Schramm

ID: 543
Author: Mr. Guido Powell
Title: Harnessing Big Data and Advanced Computing to Guide Transformation Towards Value-Based Health Systems
Type of Abstract: Oral

Objectives: To drive decision-making from a value-oriented perspective, health system managers require contextual outcome measures that are patient-centered, longitudinal, and condition-focused. While creating these measures dynamically from massive amounts of data presents many challenges, new developments in computing, artificial intelligence, and analytics allow for an innovative platform for health system.

Approach: Our semantic web application introduces: a computational pipeline for creating and updating health system indicators across data sources, artificial intelligence approaches to organizing and presenting indicators, and sophisticated data analytics for identifying important patterns in indicators. The pipeline automates big data integration from heterogeneous sources (e.g., clinical/administrative records, surveys) by applying case-detection algorithms monitoring patient status, flexibly and rapidly generates indicators with detailed stratification/filtering. Ontologies, artificial intelligence tools encoding knowledge, define logical relationships between health concepts and indicators, enabling intelligent presentation and analysis of related indicators. Finally, advanced statistical methods help identify in indicators patterns that present opportunities for action.

Results: We implemented our design in software to create the Population Health Record (PopHR). The PopHR system is currently deployed using data for the Greater Montreal region and we are continually improving the system using feedback obtained through an iterative software development process and usability testing. We continue to expand the use of advanced statistical and machine-learning methods to make use of advanced computing to analyze multidimensional system-wide priorities as well as complex longitudinal indicators. Challenges remain, however, in areas such as encoding in the system evidence about effective health system interventions.

Conclusion: We have developed and deployed a software platform that incorporates multiple innovations to generate and intelligently analyze patient-centered indicators to guide health system transformation towards value-based care.

All Authors: Guido Powell, McGill Clinical & Health Informatics; David Buckeridge, McGill University; Bernard Candas, INESSS; Maxime Lavigne, McGill Clinical & Health Informatics; Anya Okhmatovskaia, McGill Clinical & Health Informatics; Mengru Yuan, McGill Clinical &

ID: 286
Author: Dr. Stephanie Prince Ware
Title: Developing surveillance survey modules for national health surveys: an example from the Physical Activity, Sedentary Behaviour and Sleep (PASS) Indicator Framework.
Type of Abstract: Oral

Objectives: To outline the process that the Public Health Agency of Canada (PHAC) and Statistics Canada took in partnership with academic experts to develop a self-report sedentary behaviour (SB) module for the Canadian Health Measures Survey (CHMS) and population health surveys, and to establish a standard for tracking SB in Canada.

Approach: Development of the module followed a multi-step process. Initially, PHAC and Statistics Canada analysts worked together to identify key content required for a potential module through informal consultation with external experts. Next, this work was formalized through a contract with academic SB experts, the scope included a: review of existing Canadian SB modules; literature review linking different SBs to health outcomes; and, international scan of SB survey modules currently in use in large national health surveys and research. The review compared the psychometric properties (validity/reliability) of the modules/questionnaires for best practices and performance.

Results: The key output of the contract was recommendations for a short (1-6 question) SB module (International Sedentary Assessment Tool) for use in future Canadian health surveys. PHAC shared the report with Statistics Canada survey methodologists and worked with them to operationalize the module for the CHMS. Future steps (to be described) involve conducting qualitative testing on the English and French versions of the modules before inclusion in an upcoming CHMS cycle. This work informs PHAC's Physical Activity, Sedentary Behaviour and Sleep (PASS) Indicator Framework which organizes surveillance on the outcomes, risk and protective factors associated with physical activity, SB and sleep of Canadians. Specifically, it better informs the PASS indicator looking at amounts of SB in the Canadian population.

Conclusion: Inclusion in national surveys is limited due to demand to measure core content in addition to emerging health topics. Questions must therefore, be concise, evidence-based, and developed using best practices. We hope to share insight and a model for others looking to develop survey content for population health surveys.

All Authors: Stephanie Prince Ware, Public Health Agency of Canada; Gregory Butler, Public Health Agency of Canada; Wendy Thomspon, Public Health Agency of Canada; Pam Lapointe, Public Health Agency of Canada; Travis Saunders, University of Prince Edward Island; Rache

ID: 391
Author: Mr. Jeff Proulx
Title: DRUG USE AMONG SENIORS IN CANADA, 2016
Type of Abstract: Oral

Objectives: This report provides information on the number and types of drugs prescribed to seniors in the community and in long-term care facilities. It also examines the vulnerable populations at risk of polypharmacy and inappropriate medication use by measuring inequalities according to sex, age, neighbourhood income and geographic location.

Approach: Public drug claims data from all provinces, Yukon and one federal drug program (First Nations and Inuit Health Branch) were used to examine the number and types of drugs prescribed to seniors in Canada. Potentially inappropriate drug use was defined using the 2015 Beers criteria. Where possible, seniors were identified as living in the community or in a long-term care facility.

Results: The number and types of drugs prescribed to seniors changed very little between 2011 and 2016. Approximately one-quarter of seniors used 10 or more drug classes in each year. Statins remained the most commonly used drug class among seniors.

Seniors living in low-income neighbourhoods and rural/remote areas used more drugs overall, and more potentially inappropriate drugs, as did women and older seniors.

The use of antipsychotics and benzodiazepines decreased during the study period; which may be due in part to ongoing initiatives to reduce the use of these drugs in seniors. However, the use of proton pump inhibitors, which have also been the focus of such initiatives, has increased since 2011.

Results will be published in May 2018.

Conclusion: The need to reduce the number of drugs, the number of potentially inappropriate drugs and adverse drug events among seniors is a topic of increasing concern. Some initiatives focused on improving prescribing have shown promising results; however, their overall impact on the number of drugs used has been minimal.

All Authors: Jeff Proulx, CIHI; Sara Allin, Canadian Institute for Health Information ; Sara Grimwood, Canadian Institute for Health Information ; Jocelyn Rioux, ; Jordan Hunt,

ID: 315
Author: Mr. Danial Qureshi
Title: Place of Care Trajectories in the Last 2 Weeks of Life: A Population-based Cohort Study of Ontario Decedents
Type of Abstract: Oral

Objectives: Currently place of death is a commonly reported indicator of palliative care quality, but does not provide details of service utilization near end of life. To This study aims to explore place of care trajectories in the last 2 weeks of life in a general population and among distinct illness.

Approach: Design: A retrospective population-based cohort study of decedents using linked administrative health data. We analyzed place of care trajectories and place of care utilization trends.

Setting: Ontario, Canada.

Participants: All Ontario decedents between April 1st, 2010 and December 31st, 2012. Based on their cause of death, patients were categorized into several distinct illness cohorts: terminal illness (e.g. cancer), organ failure (e.g. congestive heart failure), frailty (e.g. dementia), sudden death, or other.

Main outcome measures: Place of care trajectories in the last 2 weeks of life.

Results: Results: We identified 235,159 decedents in Ontario, among which 215,533 represented the major cohorts of our analysis (terminal illness, frailty, and organ failure). 61% of all decedents died in hospital-based settings, and 20% died in community care settings. Place of care utilization trends show us a marked increase in use of palliative-acute hospital care (13% to 26%) and acute hospital care (12% to 25%), and a small decrease in community care use (15% to 12%) in the last 2 weeks of life. We see clear disparities as those with terminal illness tend to receive more palliative-acute hospital care and community care than those with frailty and organ failure.

Conclusion: Exploring place of care trajectories can illuminate end-of-life utilization patterns not evident when reporting solely place of death. The place of care trajectories in the last 2 weeks of life differ greatly by illness cohort. Examining the variations that among place of care trajectories could inform disease-specific quality improvement activities.

All Authors: Danial Qureshi, Ottawa Hospital Research Institute; Hsien Seow, McMaster University

ID: 112
Author: Mr. Sebastian Rios
Title: The Role of Supportive Housing and Marginalization on Readmissions to Inpatient Psychiatry
Type of Abstract: Oral

Objectives: This presentation examines geographic clustering of inpatient psychiatry readmissions and whether clustering is related to the geographic accessibility to supportive housing services as well as and socio-economic indicators of marginalization.

Approach: This study combines patient data from the Ontario Mental Health Reporting System (OMHRS), location of supportive housing services from Connex Ontario, as well as the Ontario Marginalization Index, a census and geographically based index that measures domains such as residential instability and material deprivation. Readmission counts were mapped based on a geographical unit known as the Forward Sortation Area (FSA). Spatial regression and multi-level models were then used to test these relations.

Results: Geographic Information System (GIS) analysis indicated that in relation to the locations of supportive housing services, readmission rates into inpatient psychiatric are spatially autocorrelated. The maps identified specific locations of high clusters of readmissions, confirming that mental health service use may be influenced by contextual factors as well as individual factors.

Conclusion: Helping identify the influence of supportive housing services provides an opportunity to plan and advocate for services based on where individuals live. In turn, allowing marginalized populations to receive services and resources and avoid further complications and relapses, and ultimately reduce the high social costs of mental illness and homelessness.

All Authors: Sebastian Rios, University of Waterloo; Christopher Perlman, University of Waterloo

ID: 123
Author: Dr. Christian Rochefort
Title: Can minimum nurse-to-patient ratios reduce patient mortality in acute care hospitals: A cohort study
Type of Abstract: Oral

Objectives: In 2004, California became the first state to implement mandatory minimum nurse-to-patient ratios in hospitals. Since then, several other jurisdictions worldwide have implemented or are considering implementing such ratios. We examined whether failure to meet minimum nurse-to-patient ratios as set in California is associated with an increased risk of death.

Approach: A dynamic cohort of adult medical, surgical, and intensive care unit (ICU) patients admitted between 2010 and 2017 to a large university health network in Quebec was followed to examine the associations between patient cumulative exposure to work-shifts where nurse-to-patient ratios were below the minima set in California (i.e., 1:5 on medical/surgical wards, and 1:2 in the ICU) and the risk of mortality. The association between these ratios and the risk of death was assessed using a Cox regression model which adjusted for patient (e.g., age, sex, comorbidities), nursing unit (e.g., unit type) and other nurse staffing characteristics (e.g., experience).

Results: A total of 124,832 patients were followed, of which 4,975 died during their hospitalization. Patients who died where, on average, older, had more comorbidities, and a higher severity of illness on admission than those who survived. After adjusting for patient, nursing unit, and other nurse staffing characteristics, we found that each 3-additional work-shifts where the nurse-to-patient ratios on medical-surgical wards were less than 1:5 was associated with an increased risk of death of 1.5% (HR: 1.015, 95% CI 1.008-1.022). We also noted that very few work-shifts in the ICU were below the minimum ratio set in California (i.e., 1:2), and found that the cumulative number of shifts where the ICU nurse-to-patient ratios were below this threshold was not significantly associated with the risk of death.

Conclusion: Failure to meet the minimum nurse-to-patient ratio set in California for medical and surgical units increases the risk of death among patients admitted to these units. There is a pressing need for policies that will attract and retain greater number of nurses in hospitals to satisfy minimum staffing ratios.

All Authors: Christian Rochefort, University of Sherbrooke

ID: 136
Author: Dr. Celia Rodd
Title: Evaluating area-based socioeconomic status predictors of pediatric health outcomes in Manitoba
Type of Abstract: Oral

Objectives: Socioeconomic gradients in health exist in Canada. Although multiple Canadian area-based socioeconomic measures (ABSM) have been developed, none have been specifically validated against relevant pediatric outcomes. Our objective was to use key pediatric health outcomes and compare the strength of association with a number of ABSM, including income quintile.

Approach: This is a retrospective cross-sectional assessment of the association between socioeconomic status (SES) measured by ABSM and key pediatric health outcomes at the population level. Data from the Manitoba Population Research Data Repository was used for residents aged 0-19y. The timeframe was 2010-2015. Outcomes included preterm births, birth weight, mortality, vaccination rates and teen pregnancy. Regressions used each outcome against various ABSM (e.g. CAN-Marg, SEFI2,) or income quintile. Best model for each outcome was assessed by goodness of fit measure (AIC). Measures of inequality included SII (Slope Index of Inequality and RII (Relative Index of Inequality, both RIImean and RIIratio).

Results: In our regression models, the 4 Can-Marg subcomponents consistently had about 15% lower AICs (best fit) across all 16 key pediatric outcomes compared to INSPQ (Raymond-Pampalon), income quintile or SEFI2 (Socioeconomic Factor Index - Version 2). Sex differences were small and inconsequential. Whether ABSMs were treated as continuous or categorical predictors was of little statistical consequence. Of note, 15 of the 16 outcomes had socioeconomic gradients identified by SII or RII on at least one of the ABSMs. Income quintile detected 12 of 15, CAN-Marg material deprivation detected 9; the combination of CAN-Marg material deprivation and ethnicity detected 13 of 15. SEFI2 detected only 3 and the National INSPQ detected 6.

Conclusion: There are significant health inequalities in pediatric outcomes in Manitoba (15 of 16 studied). Combining CAN-Marg measures of poverty (material deprivation) and ethnic concentration identified 13/15 cases of documented inequality and was the best ABSM for capturing pediatric health gradients; it was similar to income quintile alone.

All Authors: Celia Rodd, University of Manitoba; Atul Sharma, University of Manitoba; Kristine Kroeker, University of Manitoba; Marni Brownell, Manitoba Centre for Health Policy; Dan Chateau, Manitoba Centre for Health Policy, University of Manitoba

Title: Increased prevalence and severity of high blood pressures in children using the 2017 AAP guidelines: A case-control study to characterize the new disease burden
Type of Abstract: Oral

Objectives: In 2017, the American Academy of Pediatrics (AAP) published new clinical practice guidelines for pediatric hypertension, replacing the 2004 NHLBI 4th Report.

Our objectives were to determine their impact on the prevalence and severity of elevated blood pressure in children and characterize those who "progressed" to a worse clinical stage.

Approach: National Health and Nutrition Examination Survey (NHANES) cycles between 1999-2016 provide 15,647 generally healthy children aged 5-18y with measured systolic blood pressure (SBP), diastolic blood pressure (DBP), and height. BP was measured by auscultation as the mean of 3-4 measurements. For classifications. SBP and DBP percentiles under both guidelines were compared (Bland-Altman limits of agreement, LOA). Children with elevated BP who progressed (cases) were matched for age, sex, and height with normal BP controls. Anthropometric and cardiometabolic measures were compared.

Results: With the 2017 charts, SBP and DBP percentiles shifted upwards. For SBP, the mean discrepancy was 5.1 95% LOA -2.4 -12.7). For DBP it was 0.7 (-4.4 - 5.9). As a result, the population prevalence of elevated blood pressure increased from 11.8% to 14.2% (p < 0.001). Under the AAP guidelines, 905 (5.8%) in these surveys progressed, with 381 moving from normal to elevated BP or Stage 1 hypertension, 470 from elevated BP to Stage 1 hypertension, and 54 from Stage 1 to 2. Only 73 children regressed. Cases ('progressed') had higher weight, BMI, waist circumference and waist:height z-scores and were more likely to be overweight and/or obese (23.5 vs. 11.6%, p < .001) than controls. Additionally, they were more likely to have abnormal metabolic risks (LDL cholesterol, triglycerides, dysglycemia).

Conclusion: In a sample of generally healthy American children, more than 5% were reclassified with either new onset elevated BP or a more advanced hypertensive stage. Those who progressed were more overweight/obese and had other risk factors. These data suggest we may have been under-estimating cardiovascular risk in otherwise healthy children.

All Authors: Celia Rodd, University of Manitoba; Atul Sharma, University of Manitoba; Daniel Metzger, University of British Columbia

ID: 79
Author: Mrs. Laura Rosella
Title: Validation of a prediction model for the top 5% of health system users: High Resource User Population Risk Tool
Type of Abstract: Oral

Objectives: Forecasting high health resource users (HRUs) from a social determinants perspective is important for informing prevention strategies. We aimed to cross-provincially validate the Ontario derived High Resource User Population Risk Tool (HRUPoRT), a predictive model that uses socioeconomic and behavioural information to estimate the 5-year risk of becoming a HRU.

Approach: The HRUPoRT logistic regression model, developed and validated in Ontario, was applied to an external validation cohort of 10,504 Manitobans who responded to the 2007/08 and 2009/10 Canadian Community Health Surveys (CCHS). Health care utilization for 5 years following CCHS interview date were determined by computing all health sector costs in the Manitoban CCHS linked administrative databases. Discrimination and calibration of the model were assessed using c-statistic and Hosmer-Lemeshow (HL) X2 statistic. The model was subsequently recalibrated for use in Manitoba.

Results: The 12 self-reported risk factors identified in the Ontario generated HRU model were predictive of 5-year HRU status in Manitoba, with the strongest predictors being age (≥80 vs. <30: OR 27.34; CI, 18.52 –40.33), perceived health (poor vs. excellent: OR 3.83, CI: 2.85 –5.14), and smoking status (heavy vs. never: OR 2.97, CI: 2.17 –4.05). The Ontario generated HRU model had good discrimination in the Manitoba validation cohort (c statistic = 0.82), but poor calibration (HL x2 = 49.08, p <0.001). Calibration of the Ontario generated model demonstrated an overall 27.8% under-estimation of HRU probability. After recalibration, the overall difference narrowed to 6.82% and also improved across all deciles of risk.

Conclusion: HRUPoRT can accurately project the distribution of future HRUs in both Manitoba's and Ontario's single-payer health care systems. The model may need to be recalibrated before applications in other provinces. HRUPoRT applies a social determinants perspective in assessing the HRU burden in communities.

All Authors: Laura Rosella, Dalla Lana School of Public Health, University of Toronto; Kathy Kornas, University of Toronto; Joykrishna Sarkar, Manitoba Centre for Health Policy; Randy Fransoo, Manitoba Centre for Health Policy; Catherine Bornbaum, Dalla Lana School o

ID: 54
Author: Dr. David Rudoler
Title: Unwarranted variation in psychiatric care intensity
Type of Abstract: Oral

Objectives: We explore variation in the supply of community-based psychiatric care, including the practice styles of psychiatrists, the factors associated with variation in supply, and implications of this variation for access to mental health and addiction services.

Approach: We used health administrative data from the Institute for Clinical Evaluative Sciences to capture annual observations (n = 7,420) on all practicing full-time psychiatrists in Ontario, Canada between 2009/10 to 2013/14. Our analysis comprised a two-stage approach. In the first stage, we use a mixture modelling (latent-profile analysis) to identify unique psychiatrist practice styles and describe outpatient psychiatrist practices. In the second stage, we use a fractional response multinomial logit to estimate the relationship between practice style and psychiatrist practice characteristics.

Results: We identified four distinct practice styles. The highest intensity practice style (representing 21 percent of psychiatrists) provided care to an average of 84 patients per year (compared to 387 in the lowest-intensity practice style) and saw them for an average of 23 outpatient visits per year (compared to four visits in the lowest-intensity practice style). This variation occurred both across and within regions, but high-intensity practices were more heavily concentrated in urban regions. Psychiatrists with high-intensity practice styles were also less likely to see patients with previous psychiatric hospitalizations.

Conclusion: This study finds evidence for variation in the supply of community-based psychiatric care, and inefficiency and inequity of the current distribution of these resources. Interventions such as payment reform, performance reporting and feedback, and shared care may reduce unwarranted variation and improve access for persons with severe mental illness.

All Authors: David Rudoler, University of Ontario Institute of Technology; Claire de Oliveira, CAMH; Maria Eberg, Institute for Clinical Evaluative Sciences; Juveria Zaheer, Centre for Addiction and Mental Health; Paul Kurdyak, CAMH

ID: 542
Author: Grant Russell
Title: OPTIMISE: A collaborative intervention designed to improve the accessibility and quality of primary care delivered to refugees in Australia.
Type of Abstract: Oral

Objectives: Australia is struggling to deliver quality primary healthcare to increased numbers of resettled refugees.   This paper outlines the design and early insights from OPTIMISE, an outreach practice facilitation intervention designed to improve access, integration and quality of primary healthcare received by refugees resettled in two large Australian cities.

Approach: The study brings together 11 national, state and regional organisations responsible for delivering community based care to refugees, and is set in three areas of high refugee resettlement in Melbourne and Sydney. In each area we have formed Regional Partnerships comprising community members, academics, decision makers and clinicians. Following region based needs assessment, we trained expert refugee health staff to facilitate improvements in refugee care within family practices. Our mixed methods quasi-experimental trial design uses secondary analysis of practice software to identify primary outcomes. A parallel quality improvement intervention is being developed within each region's state funded refugee health services.

Results: The family practice intervention is being delivered by the facilitators in 36 family practices, randomly allocated to early and late intervention groups. Outreach facilitation within the family practices has followed consensus priorities identified from Regional Partnerships' needs assessment: recording of refugee status; use of interpreters; conduct of comprehensive physical and mental health assessments; and timely referral to appropriate external services. Baseline data collection has been completed and analysis is underway. The ease of practice recruitment and findings from a scoping exercise in each practice reinforced the felt need among participating family physicians. Our baseline data further confirms the suspected evidence/practice gap and highlights the burden faced by the system responsible for delivering accessible coordinated and high quality care to refugees.

Conclusion: Oriented to principles of participatory research and implementation science, OPTIMISE views the care of resettled refugees as a system wide responsibility. Our early experiences are showing the potential of system aligned quality improvement interventions in developing Australia's ability to meet the primary healthcare needs of this highly vulnerable population.

All Authors: Grant Russell, ; Virginia Lewis, LaTrobe University; Mark Harris, Centre for Primary Health Care and Equity (CPHCE); Sue Casey, Foundation House; I-Hao Cheng, Monash University; Nilakshi Gunatillaka, Monash University; Joanne Enticott, Monash University

ID: 93
Author: Ms. Sahar Saeed
Title: REAL WORLD IMPACT OF DIRECT ACTING ANTIVIRAL THERAPY ON PATIENT REPORTED OUTCOMES
Type of Abstract: Oral

Objectives: Clinical trials evaluating direct-acting antivirals (DAA) show substantial improvements in patient-reported outcomes (PROs) in HIV-HCV co-infected patients. However, trials have limited generalizability and patients are seldom followed post treatment response. We investigated the impact of oral-DAA therapy on health-related quality of life (HR-QOL) in a generalizable HIV-HCV co-infected population.

Approach: The Canadian Co-Infection Cohort Study prospectively follows 1785 HIV/HCV co-infected participants from 18 centers. Data on sociodemographic, clinical, PRO and prescriptions are collected biannually through self-administered questionnaires and chart review. A segmented multivariate linear mixed model compared changes in HR-QOL post-DAA compared to pre-treatment trends. HR-QOL was measured using the EQ-5D© questionnaire in English or French. Current health was scored on a visual analog scale (VAS) from 0 to 100 (worst to best health) and participants reported extent of difficulty (no/some/extreme problems) in five health domains: mobility, self-care, usual activities, pain/ discomfort, anxiety, or depression.

Results: Between 2014-2016, 318 participants initiated oral DAAs, 200 completed at least 1 visit before and after DAA treatment (total of 1868 visits) with a mean of 3.2 years (SD 2.6) pre- and 0.7 years (SD 0.5) post-DAA follow up time. 70% of DAA regimens consisted of ledipasvir/ sofosbuvir. Median age at DAA initiation was 52 (IQR 48, 56), 76% were male, 90% had an detectable HIV viral load and 27% had evidence of liver fibrosis. Sustained virologic response rates were 95%. No changes in HR-QOL were observed before DAA initiation. The immediate effect of DAA therapy resulted in a 2 unit (95% CI, -1.0-4.9) increase in patient's current health state and continued to increase post-treatment by 1.6 units/year (-1.3, 4.4).

Conclusion: Limited data currently exists on real world PROs post DAA treatment. To our knowledge this is the first report to investigate changes in PROs in a real-world setting where we found slight improvements in HR-QOL in the short-term following DAA treatment.

All Authors: Sahar Saeed, McGill University; Erica Moodie , McGill University; Erin Strumpf, McGill University; Marina Klein, McGill University Health Center

ID: 400
Author: Ms. Upasana Saha
Title: Cost-effectiveness analysis of the CALM psychosocial intervention for patients with advanced cancer
Type of Abstract: Oral

Objectives: Managing Cancer and Living Meaningfully (CALM) is a brief supportive-expressive psychotherapy aimed to relieve depression in individuals with advanced cancer. In a randomized clinical trial comparing CALM to usual care, CALM was shown to be effective in reducing depression in this population. However, its cost-effectiveness has not been established.

Approach: A cost-effectiveness analysis from the perspective of the funder was conducted using a decision tree model to compare usual care alone versus usual care with CALM. Model inputs were derived from RCT data and costs were estimated using data holdings at the cancer centre. Patient Health Questionnaire-9 scores were allocated to one of four tiers, a low tier represents an increased severity of depression. Change in depression severity tiers at 6 months was the primary outcome. The incremental cost-effectiveness ratio (ICER) was calculated and one-way and probabilistic sensitivity analyses were conducted to assess the robustness of the findings.

Results: A total of 54 participants in the intervention arm and 59 in the control arm were included in the analysis. The ICER for the base case scenario was $1,439.15/tier. This represents the incremental cost of having one person reduce depression by 1 tier on the PHQ-9 scale. When sensitivity analyses were conducted, the ICER ranged from $798/tier to $4,949/tier. Monte Carlo probability distribution histogram showed that the ICER is less than $1,300/tier in 50% of simulations and less than $5,000/tier in 97.5% of model runs.

Conclusion: Cost-effectiveness analysis of data from a randomized controlled trial conducted in a comprehensive cancer centre indicates that CALM is a cost-effective approach to reduce depression in patients with advanced cancer. Further research is being investigated to confirm the generalizability of these findings to other settings.

All Authors: Upasana Saha, Princess Margaret Cancer Centre and University of Toronto; Arlinda Ruco, University of Toronto and St. Michael's Hospital; Gary Rodin, University Health Network and University of Toronto; Christopher Lo, University Health Network; Sarah A H

ID: 483
Author: Ms. Miranda Saroli
Title: Building Capacity for Overcoming Systemic Inequities in Healthcare Access and Quality, and Health Outcomes
Type of Abstract: Oral

Objectives: The presentation will share operational framework, lessons learned and resources developed from a collaborative capacity building project among CHCs in Ontario focused on improving health equity practice. The session will highlight the role of collaborative approach, effective tools, and tailored coaching in promoting uptake of health equity framework and practice.

Approach: Despite a long history of effort and investment to improve health outcomes for poor and vulnerable groups, outcomes have not improved and the special needs of these groups have not been adequately addressed through program interventions. Given this, equity should be considered as a fundamental factor in any systematic approach to evaluation. Access Alliance, along with partner agencies, received funding from the Ministry of Citizenship and Immigration, Partnership Grants Program, to develop a set of common equity indicators that, support community-based organizations throughout Ontario to improve program quality, reduce inequities and demonstrate best value for resource investments.

Results: While partner CHCs employed good practices around collecting sociodemographic data, practices were not uniform. There was varied capacity around using/analyzing data for program planning and improvement, and varied understandings of health equity. CHCs acknowledged an eagerness to improve and standardize data collection and analysis practices, and identified a need for sectoral level capacity-building around planning/evaluation practices to serve most vulnerable using an equity lens. Through training, equity considerations were incorporated in organizational planning and evaluation, including risk identification, monitoring, benchmarking, reporting. We will discuss the impact of the capacity-building activities using a continuous quality improvement framework, and the impact of training products, as measured by reach, relevance, efficiency, effectiveness, and sustainability. We will further share successes, challenges and lessons learned.

Conclusion: A shared equity framework, paired with tailored coaching, and user-friendly decision-support tools and resources, can enable health centres to better understand and implement a health equity framework. Commitment from senior leaders on health equity and building capacity in analyzing and using equity data are key success factors.

All Authors: Tayyeba Darr, Access Alliance Multicultural Health and Community Services; Miranda Saroli, Access Alliance Multicultural Health and Community Services; Akm Alamgir, Access Alliance Multicultural Health and Community Services

ID: 233
Author: Ms. Hailey Saunders
Title: Potential economic impact of a peer navigator program in an emergency department in Ontario
Type of Abstract: Oral

Objectives: The emergency department (ED) can be an overwhelming experience, particularly for those with mental health and/or addictions (MHA) issues. The support of a peer navigator can aid in the navigation of services and recovery. This study aimed to conduct an economic analysis of a peer navigator program (PNP) in Ontario.

Approach: A cost-consequence analysis was conducted from the perspective of a public healthcare payer over an 8-month period (December 2016 to July 2017) using data collected by the PNP and the National Ambulatory Care Reporting System. The intervention group included patients who received support from the peer navigator when they visited an ED. A control group was constructed using historical hospital data from December 2012 to July 2013 when no PNP existed. The groups were compared on 7-day and 30-day repeat ED visit with potential confounders (e.g., age, sex) controlled for. Differences in outcomes and costs between groups were reported separately.

Results: Overall, there were 309 clients in the intervention group, and 1,047 in the control group. The mean age of the groups were 39 (±17) and 42 (±20) for the intervention and control groups, respectively. Approximately 50% of patients were female. Descriptively, 10% of the intervention group visited the ED again within 7 days, whereas 7% of the control group visited the ED again within 7 days. For 30-day repeat ED, 21% of the intervention group and 16% of the control group returned to the ED. The adjusted logistic regression showed no significant differences between groups in both 7-day and 30-day repeat ED visit. The annual cost of the PNP was $63,849, which included 1 full-time peer navigator and 0.25 full-time equivalent program coordinator.

Conclusion: This analysis reported differences in outcomes and costs separately, providing flexibility to decision-makers to make their own value judgment on outcomes while recognizing the limitations in the data. Compared to the control (no program group), the peer navigator program cost approximately $64,000 more, and reported similar repeat ED visits.

All Authors: Hailey Saunders, Centre for Excellence in Economic Analysis Research; Wanrudee Isaranuwatchai, Centre for Excellence in Economic Analysis Research; Samuel Law, St. Michael's Hospital; Jeffrey Hoch, UC Davis; Jorge Telchi Soliz, Centre for Excellence in Ec

ID: 525
Author: Dr. Natasha Saunders
Title: Somatic symptom and related disorders among children and youth: patterns of health system use and costs.
Type of Abstract: Oral

Objectives: Individuals with somatic symptom and related disorders (SSRD) may receive multiple investigations and delays in receipt of appropriate treatment. Our objective was to evaluate health care utilization and health system costs in a population-based sample of children and youth with health visits for SSRD in Ontario, Canada.

Approach: Hospital and emergency room discharge data and outpatient physician billings data from 2008 to 2015 identified children and youth (ages 4 to 24 years) with an index health visit for SSRD, living in Ontario. Individuals were grouped by setting (outpatient, emergency department, and hospital) in which their first diagnosis of SSRD in a health record occurred. Sociodemographic characteristics, health system use, and complete health system costs were analyzed using descriptive statistics in the one year preceding and one year following diagnosis.

Results: We identified 33,272 individuals with SSRD. 17,893 (54%) received their initial diagnosis as outpatients, whereas 13,310 (40%) and 2069 (6%) were diagnosed in emergency departments or during a hospitalization, respectively. 1167 (56%) hospitalized patients saw an outpatient physician for mental health in the year prior to their SSRD hospitalization. These patients had a mean of 10.4 (±19.5) outpatient and 3.5 (±5.4) emergency department visits prior to diagnosis with no differences in the year following diagnosis. Mean health system costs for hospitalized individuals were $33,288 (±$78,047) in the year prior to and $19,333 (±$39,439) in the year after diagnosis. Of all patients with SSRD, 14,203 (43%) saw an outpatient physician for mental health in the year following diagnosis and 5911 (18%) received specialist physician mental healthcare.

Conclusion: Youth with SSRD account for a substantial proportion of the population and have high health system utilization and costs. They may be under-recognized, receive inappropriate and costly medical care, and may not receive timely mental health support. Initiatives to recognize SSRD and ensure supports are in place early are warranted.

All Authors: Natasha Saunders, The Hospital for Sick Children; Sima Gandhi, ; Simon Chen, Institute for Clinical Evaluative Sciences; Simone Vigod, Women's College Hospital; Kinwah Fung, Institute for Clinical Evaluative Sciences; Claire De Souza, The Hospital for Sic

ID: 477
Author: Dr. Hsien Seow
Title: Early palliative care in the community: A propensity score matched cancer cohort including novel interRAI covariates
Type of Abstract: Oral

Objectives: Randomized trials of early palliative care (PC) showed benefits. However these have not been validated in community-based cohorts. The objective: to assess the impact of early vs not-early PC among cancer decedents on the risk of receiving aggressive care (ED/hospitalization), supportive care (home care/physician home visit), or hospital death.

Approach: We took a retrospective cohort of Ontario decedents between 2004 and 2014. We identified those who were "early" PC users (i.e. used a validated PC service between month 12-6 before death [exposure]). We used propensity score matching to identify a control group of "not-early" PC users. We hard matched on age, sex, cancer type and stage. The propensity score included region, income, year, radiation, etc. Among those with InterRAI assessments in exposure period, we additionally controlled for health instability, and dependency, depression, cognitive performance, pain, and caregiver presence via propensity score. McNemar test used to examine differences between pairs.

Results: 51,001 decedents received early PC vs 85,979 not-early PC (i.e. late or none). After matching among those with no interRAI assessments, we found 34,184 pairs of early and not-early PC users. Both groups had equal distributions of age, sex, cancer type (e.g. 25% lung cancer) and stage (e.g. 24% stage 3 or 4). Compared to not-early PC users, early PC users had a 10% lower absolute risk to die in hospital and have any aggressive care respectively and a 24% higher absolute risk to any receive supportive care. In a mutually exclusive cohort, matching among those with interRAI assessments, we identified 3,419 pairs of early and not-early PC users. Both groups had equal scores in various health scales. Outcomes were similar to the non-interRAI analysis.

Conclusion: Using propensity score matching, decedents receiving early PC are likely to receive more supportive care and less aggressive care compared to not-early PC users. Our study uniquely focuses on a population receiving community palliative care. In a distinct sample using interRAI assessments, we control for several confounders previously unmeasured.

All Authors: Hsien Seow, McMaster University; Lisa Barbera, University of Toronto, Department of Radiation Oncology; Kimberlyn McGrail, School of Population and Public Health, University of British Columbia; Centre for Health Services and Policy Research, University o

ID: 100
Author: Dr. Sarah Simkin
Title: Integrated Service Focused Health Workforce Planning at the Regional Level: Advice for the Toronto Central Local Health Integration Network Primary Care Strategy
Type of Abstract: Oral

Objectives: The Toronto Central Local Health Integration Network (TC LHIN) has identified health workforce planning as essential to the implementation of their Primary Care Strategy. Accordingly, this project aimed to develop an evidence-informed, data-driven, fit-for-purpose, and integrated service focused health workforce planning model for primary care services in the TC LHIN.

Approach: Two complementary activities were undertaken to inform model development: a comprehensive review and assessment of existing health workforce planning models, and the identification of appropriate datasets on population health needs and health workforce availability. Models were first assessed based on their alignment with a list of guiding principles that outlined the core needs and key challenges faced by the TC LHIN, and the strength of evidence surrounding the models' performance and acceptability. Models that were deemed methodologically appropriate for the TC LHIN were then assessed based on the availability of requisite data.

Results: A hybrid, integrated service-based model was developed, accounting for the scale, quality, and link-ability of available data, and combining elements from a number of existing models in order to embed key features that align with the TC LHIN's configuration and objectives. The model provides the TC LHIN with the capacity to 1) project demand for multi-professional integrated primary care as a function of population need, 2) project alignment between service requirements and capacity at the neighbourhood, sub-region, and LHIN levels for short and long-term planning horizons, 3) engage primary care providers in the co-design of scenario analyses to assess the impact of policy interventions against an array of potential futures, and 4) conduct in-depth examinations of key challenges, including changing practice patterns, and population mobility.

Conclusion: This model is complemented by a framework to guide the institutionalization of ongoing and iterative health workforce planning processes within the TC LHIN. Such processes could enable the selection of policy interventions that are robust to uncertainty, and promote more stable alignment between service requirements and capacity.

All Authors: Sarah Simkin, University of Ottawa; Caroline Chamberland-Rowe, Telfer School of Management - University of Ottawa; Gholamhosain Salehi Zalani, University of Ottawa; Ivy Bourgeault, University of Ottawa

ID: 453
Author: Dr. Deepa Singal
Title: In-Utero SSRI and SNRI Exposure and the Risk of Neurodevelopmental Disorders in Children: A Population-Based Retrospective Cohort Study Utilizing Linked Administrative Data
Type of Abstract: Oral

Objectives: Studies demonstrating association between neurodevelopmental disorders in children exposed in-utero to serotonergic antidepressants are limited by confounding by indication and disease severity. We addressed these limitations by using a population-based sample of women diagnosed with mood and anxiety disorder, thus restricting analysis to patients for whom pharmacotherapy is indicated.

Approach: Using population-level linked administrative data from a universal health care system, this study included all mother-newborn pairs in Manitoba (born 1996 to 2009, with follow-up through 2014). High Dimensional Propensity Scores and inverse probability treatment weighting were used to address confounding by indication and disease severity. The final trimmed cohort consisted of mothers who had a mood/anxiety disorder diagnosis between 90 days prior to conception until delivery (n=4998); 16.8% had at least two dispensations of an SSRI or SNRI during pregnancy. Cox Proportional Hazard Regression models were used to estimate risk of Autism Spectrum Disorder (ASD), epilepsy and ADHD.

Results: Asymmetric trimming of the study cohort resulted in a total of 4998 mother-child dyads; 4159 children whose mothers did not use SSRIs/SNRIs during pregnancy and 839 children who were exposed to 2+ prescriptions in-utero. During 40,593 person years of follow-up, 2.27% of children were diagnosed with ASD, and 1.92% of children in the un-exposed group were diagnosed with ASD. Use of SSRIs/SNRIs during pregnancy was not associated with an increased risk of ASD HR 0.92 (95% CI 0.42 to 2.03). Additional analysis also demonstrated no association between Epilepsy HR 1.21 (0.48, 3.05), and ADHD HR 1.13 (0.78, 1.64) and in-utero exposure to serotonergic antidepressants.

Conclusion: In a large population level sample, in utero exposure to serotonergic antidepressants compared with no exposure does not increase risk of ASD, epilepsy or ADHD among children of women who have prenatal mood/anxiety disorder.

All Authors: Deepa Singal, British Columbia Academic Health Sciences Network; Dan Chateau, Manitoba Centre for Health Policy, University of Manitoba; Matt Dhal, Manitoba Centre for Health Policy; Elizabeth Wall-Wieler, Stanford University; Laurence Katz, University of

ID: 500
Author: Dr. Deepa Singal
Title: Prescription Opioid Use and Concurrent Psychotropic Drug Use During Pregnancy: A Population-Based Retrospective Cohort Study Utilizing Linked Administrative Data
Type of Abstract: Oral

Objectives: It is important to investigate the use of prescription opioids during pregnancy to gain insight into the potential impact of maternal opioid exposure during pregnancy on children. We report the prevalence of prescription opioid use and concurrent psychotropic drug use in a large, Canadian population-based cohort of pregnant women.

Approach: Using population-level linked administrative data from a universal health care system, this study included all women with a live birth in Manitoba from 1996 to 2014. Dispensing of opioids was determined from prescription drug claim data. Patterns of prescription opioids dispensed to pregnant women were investigated by demographic characteristics, region of residence, and socioeconomic status. Concurrent psychotropic therapies were also measured.

Results: In a large population level sample of pregnancies (N=245,784), 2.43% of pregnancies were exposed to 2+ dispensations of opioids. An additional 4.95% of pregnancies recorded at a single opioid dispensation. Compared to women who were not dispensed any opioid prescriptions, the proportion of opioid exposed pregnancies who were also prescribed anti-depressants (SSRI/SNRI) was sevenfold higher (22.5% vs 3.05%). The same pattern was found for anxiolytics (37.2% vs 1.5%) and antipsychotics (3.5% vs 0.34%).

Conclusion: A sizable proportion of women were dispensed opioids during pregnancy. Future research should be done on short term and long term effects of these medications on infants and children. Moreover, these results highlight the need for further investigation into the effects of exposure to multiple psychotropic drugs on the fetus.

All Authors: Deepa Singal, British Columbia Academic Health Sciences Network; Dan Chateau, Manitoba Centre for Health Policy, University of Manitoba; Matt Dhal, Manitoba Centre for Health Policy; Laurence Katz, University of Manitoba; Chelsea Ruth, Manitoba Centre for

ID: 516
Author: Dr. Deepa Singal
Title: In-Utero SSRI and SNRI Exposure and the Risk of Long Term Adverse Mental and Educational Outcomes in Children: A Population-Based Retrospective Cohort Study Utilizing Linked Administrative Data
Type of Abstract: Oral

Objectives: Few studies investigate the impact of untreated maternal depression versus in-utero antidepressant exposure on long-term effects on children. We delineate effects of these medications from untreated depression using a population-based sample of women diagnosed with mood and anxiety disorder, thus restricting analysis to patients for whom pharmacotherapy is indicated.

Approach: Using population-level linked administrative data from a universal health system, this study included all mother-newborn dyads in Manitoba (born 1996 to 2009, with follow-up through 2014). High Dimensional Propensity Scores and inverse probability treatment weighting were used to address confounding by indication and disease severity. The final trimmed cohort consisted of mothers who had a mood/anxiety disorder diagnosis between 90 days prior to conception until delivery (n=4998); 16.8% had at least two dispensations of an SSRI or SNRI during pregnancy. Cox Proportional Hazard Regression models were used to estimate risk of mood and anxiety disorder in children and educational outcomes.

Results: Asymmetric trimming of the study cohort resulted in a total of 4998 mother-child dyads; 4159 children whose mothers did not use SSRIs/SNRIs during pregnancy and 839 children who were exposed to 2+ prescriptions in-utero. Use of SSRIs/SNRIs during pregnancy was not associated with an increased risk of mood/anxiety disorder in children HR 1.32 (95% CI 0.67 to 2.62). Initial results on the association between in-utero antidepressant use and early childhood development index (EDI) scores indicate no impact on school readiness (31.9% vs 29.3%), or scores on standardized tests of literacy and numeracy in Grade 3 (28.4% meeting expectation versus 31.4%) and in Grade 7 (68.8% versus 70.0%).

Conclusion: In a large population level sample, in utero exposure to serotonergic antidepressants compared with no exposure does not increase risk of the onset of mood and anxiety disorders and adverse educational outcomes in children later in life.

All Authors: Deepa Singal, British Columbia Academic Health Sciences Network; Dan Chateau, University of Manitoba; Matt Dhal, Manitoba Centre for Health Policy; Shelley Derksen, Manitoba Centre for Health Policy, University of Manitoba; Laurence Katz, University of M

Title: Power and Knowledge: Understanding how Migrant Women and Canadian-born Women Participate in Obstetrical Decision-Making
Type of Abstract: Oral

Objectives: This study aims to explore migrant women's ability to make decisions during labour and delivery (L&D) including C-section decisions. Specifically, we wanted to understand whether the experiences differ from that of Canadian-born women, what barriers limit participation, as well as if and how women are able to overcome these barriers.

Approach: A qualitative study using a focused ethnographic approach was conducted at a teaching hospital in Edmonton over a ten-month period.

The study population comprised: 1) migrant women who immigrated to Canada after 2004 (N=64) and 2) Canadian-born women (N=27). All women included had a higher risk of undergoing a C-section. Data were collected through observation of prenatal appointments (N=250), L&D observations (N=27) and postpartum in-depth interviews (N=44). Written informed consent was obtained from participants and ethics approval was received from the University of Alberta.

Results: Participation experiences were found to be similar between both migrant and Canadian-born women. Power imbalances prevented both groups from participating in decision-making. These included: the institutional authority of providers, limited opportunities to participate in decision-making, limited sharing of information and communication barriers specific to migrant women. However, 'expert patients' consisting of migrant and Canadian-born women maneuvered and overcame these power imbalances by having privileged knowledge of obstetrical interventions available and the learned ability to exercise their patient rights. Women's awareness of patient rights, ability to negotiate during decision-making, and confidence in their demands were located in privileged knowledge, which was not universally accessible. This information was acquired either due to a close proximity with the healthcare system or through previous healthcare experiences.

Conclusion: In order to support both migrant and Canadian-born women's participation in L&D decision-making, we recommend further training to healthcare providers to actively inform, and involve women. Improved provision of information on obstetrical care and patient rights is important to ensure patients are equipped to engage in conversations with providers.

All Authors: Priatharsini (Tharsini) Sivananthajothy, University of Alberta School of Public Health; Zubia Mumtaz, School of Public Health, University of Alberta

ID: 411
Author: Ms. Andrea Smith
Title: Rapid qualitative reviews – a scoping review of existing guidance and examples
Type of Abstract: Oral

Objectives: Health care decision makers are increasingly demanding qualitative evidence, typically in the form of qualitative evidence syntheses of patients' perspectives and experiences. Given the tight times of policy making, a new form of evidence synthesis has emerged – rapid qualitative reviews.

Approach: Rapid qualitative syntheses requires either a substantial increase in resources or, more commonly, a compromise in rigor, yet guidance on what the ideal or optimal compromises are is lacking. In order to inform de novo guidance, we conducted a systematic scoping review to identify existing guidance and published examples of rapid qualitative reviews. We searched Medline and CINAHL using medical subject headings and keywords and searched the grey literature and solicited examples from other agencies supporting evidence-informed decision making through evidence synthesis.

Results: We summarized the X included studies using the Search, AppraisaL, Synthesis, Analysis (SALSA) framework to identify deviations and abbreviations in the synthesis process by authors of published examples and advocated or proposed by guidance documents. We contacted authors for details of methods used when not reported. Our main findings are that there are few peer-reviewed published examples of rapid qualitative reviews and no guidance documents that are specific to rapid qualitative reviews. Rather, there appear to be a trend towards publishing rapid mixed methods and realist reviews. A number of agencies are producing rapid qualitative reviews, however the methods used are only limitedly reported

Conclusion: Our review identifies the urgent need to develop and explore methods for the synthesis of qualitative research that balance the need for rapidity with rigour. In the meantime, producers and users of rapid qualitative reviews ought to acknowledge the potential limitations rapid methods.

All Authors: Andrea Smith, CADTH; Laura Weeks, CADTH; David Kaunelis, CADTH; Andrew Booth, School of Health and Related Research (ScHARR) University of Sheffield ; Fiona Campbell , ScHARR, University of Sheffield

ID: 170
Author: Dr. Maxwell Smith
Title: Is 'Health Equity' Bad for the Public's Health? A Qualitative Study of Public Health Policy-Makers' Perspectives
Type of Abstract: Oral

Objectives: The objectives of this study were to understand public health (PH) policy-makers' perspectives on how two 'core values' in PH (health equity and social justice) are conceptualized in practice, and to examine the extent to which these perspectives align with how these concepts are conceptualized in the PH ethics literature.

Approach: This study involved twenty in-depth, qualitative interviews with public health policy-makers recruited from public health organizations at the municipal (Greater Toronto Area), provincial (Ontario), and federal levels in Canada. With the aim of examining whether different perspectives exist in different programmatic areas of public health, policy-makers were recruited from two key programmatic areas of public health policy: chronic disease prevention (ten participants) and public health emergency preparedness and response (ten participants). Resulting interview data were then analyzed using an 'empirical ethics' methodology that combined empirical data with ethical analysis involving theories of social justice.

Results: Study participants viewed health equity and social justice as distinct, and perceived the meaning of the former to be 'clearer'. Health equity was conceptualized as focusing on 'proximal' disparities in access to public health services and 'materialistic' determinants of health, whereas social justice was conceptualized as focusing on structural issues that lead to disadvantage, like sexism and racism. Health equity was characterized as 'neutral' and 'comfortable' whereas social justice was characterized as 'political' and 'uncomfortable'. Participants suggested that equity is easier to 'sell' in practice. These findings reveal the problematic ways in which considerations of social justice and health equity are, and are not, taken up in public health policy, which in turn may have negative implications for the public's health.

Conclusion: These findings indicate that health equity dominates the discursive space wherein justice-based considerations are brought to bear on public health activities at the policy level. As a result, 'uncomfortable' justice-based considerations of power imbalances and systematic disadvantage can be eschewed in practice in favour of attending to 'proximal' inequities.

All Authors: Maxwell Smith, Western University

ID: 292
Author: Ms. Mélanie Ann Smithman
Title: How policy changes influenced the design of an organizational innovation to improve access to primary care for vulnerable populations: a participatory action research
Type of Abstract: Oral

Objectives: In this participatory action research, we aimed to design, implement and evaluate an organizational innovation to improve access to primary care for vulnerable populations, in partnership with stakeholders in Quebec. The objective here is to describe how policy changes influenced the design of the innovation.

Approach: A steering committee of managers, family physician leads, researchers and community representatives from two local health networks met periodically between 2014 and 2018 to identify a priority access need, design an innovation and oversee implementation. During this period, Quebec's healthcare system underwent major restructuring and downsizing, including many polices changes targeting primary care. The influence of policy changes on the design of the innovation was captured through participatory observations of over 50 meetings with stakeholders, internal documents (meeting minutes, research diaries, logic models, process maps), Stange's context description tool, the Template for Intervention Description and Replication (TIDieR) and policy documents.

Results: Policy changes heavily influenced the innovation's design. The committee prioritized a need to improve access to family physicians for patients from high deprivation neighborhoods. To align with the Ministry of Health's priorities, this was operationalized to mean attachment of patients to family physicians through Quebec's centralized waiting list. Stakeholders were interested in a community health worker (CHW) intervention to support patients to overcome barriers to attachment. However, in reaction to budget cuts and a province-wide reallocation of social workers to primary care practices, the innovation was adapted to integrate CHW elements into social workers' existing roles. The innovation's design was also influenced by threats and opportunities posed by Bill 20, which aimed to increase family physicians' patient panels and improve continuity of care.

Conclusion: Partnering with various stakeholders allowed us to adapt the innovation's design to a rapidly changing policy context. While adapting to policy changes made the process very time consuming (4 years), it enhanced the relevance, acceptability and feasibility of the innovation and may increase its chances of sustainability and spread.

All Authors: Mélanie Ann Smithman, Université de Sherbrooke; Jeannie Haggerty, McGill University; Mylaine Breton, Universite de Sherbrooke; Christine Beaulieu, St.Mary's Research Centre - McGill University; Ekaterina (Katya) Loban,

ID: 158
Author: Mr. David Snowdon
Title: Peer review of physiotherapists managing patients with hip fracture can improve compliance with guidelines: a before-and-after observation study
Type of Abstract: Oral

Objectives: To determine if a peer review intervention for physiotherapists can improve compliance with clinical practice guidelines and outcomes for patients with hip fracture.

Approach: A before-and-after observational study design, with a comparison site, was conducted on acute orthopaedic hospital wards. Peer review was delivered by an experienced physiotherapist and involved: direct observation of physiotherapist clinical management of patients with hip fracture; and monitoring and feedback about compliance with guidelines. It was typically completed in 30-minute sessions once every fortnight. The primary outcome was compliance with hip fracture guidelines including mobilization on the day following surgery and mobilizing every day thereafter. Secondary patient outcomes included physical function, length of stay, falls, re-admissions and discharge destination. Compliance with guidelines was analyzed using logistic regression.

Results: Four physiotherapists and 290 patients with a traumatic hip fracture participated in the study. Approximately 30% of patients with hip fracture resided in residential care and 55% required the use of a walking aid to mobilize pre-fracture. Physiotherapists attended 96% of scheduled peer review sessions. Compliance with the mobilization guideline with the addition of peer review improved from 9% to 35% on the day after surgery (OR 5.23, 95% CI 1.98-13.80; P=0.001) and from 32% to 68% by the second post-operative day (OR 4.46, 95% CI 2.18-9.15; P<0.001). There was no significant improvement in any patient outcomes.

Conclusion: Peer review of physiotherapists improved compliance with hip fracture guidelines, but did not improve patient outcomes. Further research is required to investigate the applicability of hip fracture guidelines to a population of patients with hip fracture who are frail and who reside in residential care.

All Authors: David Snowdon, La Trobe University; Sandra Leggat, La Trobe University; Nicholas Taylor, La Trobe University

ID: 319
Author: Mr. David Snowdon
Title: Reducing waiting time in ambulatory and community health services: A Stepped Wedge Cluster RCT
Type of Abstract: Oral

Objectives: Long waits for outpatient and community services are common, leading to reduced health outcomes, anxiety, economic costs and pressure on other parts of the health continuum. This study aimed to test an evidence based approach access and triage designed to reduce waiting time in these services.

Approach: The STAT model (Specific timely Appointments for Triage) involves a single injection of resources to reduce existing backlogs, coupled with an analysis of supply and demand and creation of protected initial appointments that aim to maintain patient flow at the rate of demand.

A stepped wedge cluster randomised control trial was conducted involving 8 sites (paediatric and adult rehabilitation services and specialist clinics) and 3116 participants. The study included (1) a pre intervention period (2) progressive introduction of STAT at one new site per month, in random order and (3) A 12 week post intervention period across all sites.

Results: The intervention resulted in a 33.8%, estimated mean reduction in the primary outcome of waiting time for first appointment (IRR = 0.662, 95% CI 0.628 to 0.698, P < 0.001). Waiting time was observed to decrease from a median of 42 days (IQR 19 to 86) in the control period to a median of 24 days (IQR 13 to 48) in the intervention period. Variation in waiting time was also reduced, suggesting a reduction in the 'tail' of patients previously classified as low priority waiting excessively long periods for assessment.

Conclusion: The STAT model is designed to reduce waiting times for ambulatory services by maintaining patient flow and encouraging service providers to make priority decisions in the context of demand. This is a feasible way to reduce waiting time, resulting in improved access to care and increased patient flow.

All Authors: Katherine Harding, Eastern Health/La Trobe University; David Snowdon, La Trobe University; Nicholas Taylor, La Trobe University; Sandra Leggat, La Trobe University

ID: 92
Author: Ms. Lesley Soril
Title: Moving Low Value Care Lists into Action: Prioritizing Candidate Health Technologies for Reassessment Using Administrative Data
Type of Abstract: Oral

Objectives: To develop and implement a process, leveraging administrative health data assets and existing lists of 'low value' care recommendations (i.e., Choosing Wisely Canada, National Institute for Health and Care Excellence 'do not do' recommendations, and 'low value' technologies in the Australian Medical Benefits Schedule), to prioritize health technologies for reassessment.

Approach: An expert advisory committee comprised of clinical experts and healthcare system decision-makers was convened to determine key process requirements. The process was pilot tested for feasibility in British Columbia (BC). Selected health technologies considered for funding in the BC healthcare system are vetted through the Ministry of Health's Health Technology Assessment Committee (HTAC). The scope of the HTAC includes both the assessment of new technologies and reassessment of technologies currently used in the healthcare system. This provided an ideal, collaborative opportunity in which to pilot test the proposed process.

Results: The expert committee identified five required attributes for the process: data-driven, routine and replicable, actionable, stakeholder collaboration, and high return on investment. Guided by these attributes, a 5-step process was developed. First, over 1300 published 'low value' technologies were identified. Using appropriate coding systems for BC's administrative health data (e.g., International Classification of Diseases [ICD]), the 'low value' technologies were queried to examine frequencies and costs of technology use. This information was used to rank potential candidates for reassessment based on high annual budgetary impact. Lastly, clinical experts reviewed the ranked technologies prior to broad dissemination and stakeholder action. Pilot testing of the process in BC resulted in the prioritization of 9 initial candidate technologies for reassessment.

Conclusion: This is the first account of a systematic approach to move 'low value' care recommendations into action. This process has been adopted and operationalized by the BC Ministry of Health. This work demonstrates the feasibility and strength of using administrative data to identify and prioritize low value technologies for reassessment.

All Authors: Lesley Soril, University of Calgary; fiona clement, University of Calgary; Stirling Bryan , University of British Columbia ; Craig Mitton , University of British Columbia; Brayan Seixas, University of British Columbia

ID: 245
Author: Ms. Nadia Sourial
Title: Comparing trends in health system performance in men and women diagnosed with dementia: a population-based study in Ontario
Type of Abstract: Oral

Objectives: The introduction of enhanced primary care models in Ontario may lead to improved health system performance for men and women with dementia; however, provincial-level information is needed. This study examines trends in health system performance over time and whether they are similar between men and women.

Approach: Population-based, repeated, cohort study of community-dwelling adults 65+ years in Ontario, newly diagnosed with dementia in each year between 2002 and 2014 and followed for one year. Thirty indicators of primary care performance were derived from the Health Quality Ontario framework and the Canadian consensus guidelines in dementia. For each indicator, a negative binomial model was used to compute age-adjusted rates per person-year, separately for men and women. Variations in rates over time were represented graphically, stratified by sex.

Results: The number of incident cases in men increased from 7,773 in 2002 to 10,070 in 2014; cases in women increased from 12,096 to 14,172. Visits to primary care (~11 per year) and specialists (~2 per year) were similar and stable over time in both men and women. Home care visits doubled from 13 to 26 visits in women and from 10 to 20 visits per year in men. Long-term care admissions decreased by 5% in both sexes. Non-urgent emergency department visits decreased from 52% to 30% in men and from 55% to 28% in women. The rate of avoidable hospitalizations decreased slightly by 1-2% over time in both sexes. Results on other indicators will also be presented.

Conclusion: This study is among the first to track health system performance and tp contrast sex-differences in newly-diagnosed persons in Ontario. Few sex differences over time were observed. While some indicators improved overall, the relationship between the introduction of new primary care models and these changes needs to be further explored.

All Authors: Nadia Sourial, Department of Family Medicine, McGill University; Isabelle Vedel, McGill University; Jacob Etches, ICES; Tibor Schuster, McGill University; Erin Strumpf, McGill University; Susan Bronskill, ICES; Claire Godard-Sebillotte, McGill University

ID: 373
Author: Ms. Sarah Spruin
Title: Trajectories of cognitive decline among people needing long-term care in Ontario
Type of Abstract: Oral

Objectives: Many residents in long-term care facilities (LTCFs) experience declining cognition. However, the varying rates of cognitive decline, including the impact of dementia, have not been previously examined at a population level. This study describes the patterns of change in cognitive function among residents in LTCFs over three years.

Approach: Ontarians in a LTCF with 2+ Residential Assessment Instrument records in the Continuing Care Reporting System (CCRS) database between January 2009 and April 2016 were identified (n=202,593). Baseline Cognitive Performance Scale (CPS) score, demographics, and functional characteristics were obtained from the earliest assessment within the study period. Cognitive decline was characterized by an increase in residents' CPS score between their first and last assessments within the three-year window. Deciles of monthly change in CPS were used to create three trajectories of cognitive decline (slow, moderate, rapid). Multinomial logistic regression was used to investigate characteristics that differentiated residents in these groups.

Results: Approximately 57% of residents showed no cognitive decline; the remaining 43% were categorized as slow (40%), moderate (40%), and rapid decliners (20%). Rapid decliners were able to perform less activities of daily living, and a smaller proportion of them had dementia (79.2%) compared to slow decliners (86.3%), suggesting poorer baseline health influences rapid decline more than dementia status. Although dementia was less prevalent among rapid decliners, they were shown to decline 13 times faster than slow decliners, with a mean monthly decline in CPS of 0.55 CPS/month (1.8 months/CPS). This trend was consistent with the results of the multinomial logistic regression; rapid decliners had the lowest odds of dementia (OR=1.32), and slow decliners the highest (OR=2.41), compared to those who did not decline.

Conclusion: These results give a better understanding of cognitive decline and its relationship with dementia at the population level. Rapid decliners were less likely to have dementia but had poorer functionality than slow decliners indicating that large health insults may influence rapid decline more than dementia among LTCF residents in Ontario.

All Authors: Sarah Spruin, ICES UOttawa; Stacey Fisher, Ottawa Hospital Research Institute; Amy Hsu, Bruyère Research Institute; Doug Manuel, Ottawa Hospital Research Institute; Geoffrey Anderson, Institute of Health Policy, Management and Evaluation of University of

ID: 358
Author: Mr. Joseph Ssendikaddiwa
Title: Cross-provincial comparison of searches for walk-in clinics and emergency departments using Google Trends
Type of Abstract: Oral

Objectives: Models of primary care, including arrangements for same day and after-hours access, vary widely across provinces. Use of walk-in clinics and emergency departments may also vary, but existing data sources that allow comparison are limited. We use Google Trends to compare searches for walk-in clinics and emergency departments across provinces.

Approach: We developed search strategies to capture the range of terms used for walk-in clinics (e.g. urgent care clinic, after hours clinic) and emergency departments (e.g. ED, emergency room) across Canadian provinces. We used Google Trends to determine the frequencies of these terms relative to total search volume, and standardized search frequencies to allow comparisons across provinces and over time (2011-2017). We completed a literature scan to document variation in primary care models, including walk-in clinics and approaches to improve access. We explore how care seeking captured by Google Trends corresponds to policy environments and models of care across provinces.

Results: Searches for walk-in clinics were most common in the western provinces of British Columbia, Alberta, and Saskatchewan, and lowest in New Brunswick, Newfoundland and Labrador, and Ontario. Relative search frequency increased steadily, doubling in most provinces between 2011 and 2017. Manitoba, British Columbia, and Nova Scotia had high search frequency for emergency departments, and Saskatchewan, Alberta, and Ontario had the lowest. The frequency of emergency department searches has increased less rapidly than for walk-in clinics, though marked increases for Manitoba, BC, and Nova Scotia were observed since 2013. Search frequencies may reflect patient care seeking, but may also be impacted by news coverage and other events. There were consistencies between the observed results in Google Trends and what is known in the literature

Conclusion: Google Trends provides insights into patterns of care-seeking, as we observe substantial interprovincial variation, and marked growth in the frequency of searches for walk-in clinics .Variation in Google searches appears to correspond to differences in policies related to walk-in clinics, advanced access, and after hours care between provinces.

All Authors: Joseph Ssendikaddiwa, Simon Fraser University; Ruth Lavergne, Simon Fraser University

ID: 289
Author: Dr. David Stock
Title: Impact of chronic disease on Alternate Level of Care utilization in the Nova Scotia acute care population
Type of Abstract: Oral

Objectives: Alternate-Level-of-Care (ALC) – designating patients who remain in acute care post medical discharge - utilization is common among older patients with certain chronic conditions. This Nova Scotia-wide study describes the distribution of prevalent chronic conditions among ALC patients and estimates the effect of these conditions on acute care ALC utilization.

Approach: The proportion of ALC patients diagnosed with common chronic conditions is provided for the Nova Scotia-wide acute care population spanning 2014 and 2015 fiscal years. Zero-inflated negative binomial regression was used to estimate the multivariable-adjusted effects of the most prevalent of these conditions on 1)the likelihood of an acute care episode ending in ALC and 2)the proportion of time spent in ALC relative to overall length of stay. Models were adjusted for age, sex, neighborhood income quintile, rurality and method of entry as a surrogate for patient complexity. Data was accessed and linked at Health Data Nova Scotia.

Results: There were 139,937 acute care discharges, 4,047 of which ended in ALC. Of the latter, 30.4%, 28.6%, 27.2%, 13.4%. 11.9%, 10.4%, 10.3% had diagnoses of hypertension, dementia, diabetes, cancer, COPD, ischemic heart disease, or heart failure. Women had higher prevalence of hypertension (31.7% vs 28.6%. pχ2=0.04); men had more diabetes (31.5% vs 24.0%, pχ2<0.001) and cancer (16.7% vs 10.9%, pχ2<0.001). Dementia was associated with a 6-fold likelihood of transfer to ALC, while COPD and ischemic heart disease incurred reduced risk. Male sex, lower household income and rurality were associated with transfer to ALC. Dementia patients spent 20% more (RR: 1.20; 95% CI: 1.16-1.25) of their acute care stay in ALC; hypertension, diabetes and heart disease patients spent four to five percent less.

Conclusion: Patients with certain chronic conditions are substantially more likely to utilize ALC. Differences in the likelihood of ending an acute care stay in ALC and proportion of acute care stay spent in ALC by chronic disease diagnosis can guide patient need-based policy targeting discharge management and acute care efficiency.

All Authors: David Stock, Maritime SPOR SUPPORT Unit; Adrian Levy, Dalhousie University; Adrian MacKenzie, Maritime SPOR SUPPORT Unit

ID: 246
Author: Mrs. Shannon Struck
Title: Bully Victimization and Binge Drinking and Smoking Among Boys and Girls in Grades 7 to 12 in Manitoba
Type of Abstract: Oral

Objectives: Bullying victimization can lead to increased risky health behaviours. This study investigated if adolescents who have experienced various types of bullying victimization (i.e., traditional bullying, discriminatory harassment, and cyber-victimization) are associated with of binge drinking or smoking and to determine if a dose-response trend exists.

Approach: Data were acquired from the 2012/13 Manitoba Youth Health Survey that included 475 participating schools (N=64,174). Students in grades 7-12 completed the survey. Logistic regression models were used to examine the relationship between the frequency of each type of bullying victimization and binge drinking and smoking. All analyses were stratified by gender and grade. Bullying victimization was measured over the past 12 months. Binge drinking was defined as having five or more drinks of alcohol within a couple of hours over the past 30 days and smoking was defined as ever taking even a few puffs in the respondent's lifetime.

Results: 58.3% of boys and 67.8% of girls reported being a victim of bullying. Among all students, 17.5% reported using alcohol and 11.3% reported smoking. A dose-response trend was observed with increasing occurrence of bullying victimization types relating to greater odds of binge drinking and smoking for boys and girls in grades 7 to 9. Dose response relationships for boys and girls in grades 10 to 12 were also seen, but were attenuated compared to the younger age group. All occurrences of bullying victimization were significantly related to increased odds of smoking among boys and girls in grades 10 to 12.   Cyber-victimization was related to the greatest odds of binge drinking and smoking among the different types of bully victimization assessed.

Conclusion: Findings indicate that all types of bullying victimization are associated with increased odds of youth participating in risky behaviours such as binge drinking and smoking. Efforts to reduce these 3 types of bullying and support victims need to be addressed at all grade levels to reduce these risky behaviours.

All Authors: Shannon Struck, University of Manitoba; Tracie Afifi, University of Manitoba; Sarah Turner, University of Manitoba; Samantha Salmon, University of Manitoba; Tamara Taillieu, University of Manitoba; Janique Fortier, University of Manitoba

ID: 515
Author: Dr. Ania Syrowatka
Title: What predictors of new-onset distress are available in routinely collected administrative health databases? A population-based cohort study of breast cancer patients
Type of Abstract: Oral

Objectives: The primary objective was to identify the predictors of new-onset distress available in routinely collected administrative health databases to help guide allocation of supportive care resources after breast cancer diagnosis. The secondary objective was to explore whether the predictors vary based on the period of the cancer care trajectory.

Approach: A population-based cohort study followed 16,495 newly diagnosed female breast cancer patients who did not experience distress during the 14 months prior to breast cancer diagnosis to identify the characteristics of women at higher risk of new-onset distress. The incidence of distress was reported overall and by type of mental health problem. Time-varying Cox proportional hazards models were developed to identify predictors of new-onset distress during two key periods of the cancer care trajectory: (i) hospital-based treatment where women undergo active treatment with breast surgery, chemotherapy and/or radiotherapy, and (ii) 1-year transitional survivorship where women begin follow-up care.

Results: The incidence of distress was 16% within each period. Anxiety accounted for 85% and 66% of new cases during hospital-based treatment and transitional survivorship, respectively. Predictors of new-onset distress during both periods were: younger age, axillary lymph node dissection, rheumatologic disease, and baseline menopausal symptoms as well as new opioid dispensations, emergency department visits and hospital contacts that occurred during follow-up. Predictors also varied based on the period of the cancer care trajectory. More advanced breast cancer and type of treatment (specifically, chemotherapy and radiotherapy) were associated with onset of distress during hospital-based treatment. Distress during transitional survivorship was predicted by diagnosis of localized breast disease, shorter duration of hospital-based treatment, receipt of additional hospital-based treatments in survivorship, and newly diagnosed comorbidities or symptoms.

Conclusion: This study identified the predictors of new-onset distress available in routinely collected administrative health databases, and showed how the predictors change between hospital-based treatment and transitional survivorship periods. The results highlight the importance of developing predictive models that are tailored to the period of the cancer care trajectory.

All Authors: Ania Syrowatka, Brigham & Women's Hospital / Harvard Medical School; Robyn Tamblyn, McGill University - Institute of Health Services and Policy Research; Daniala Weir, McGilll University; James Hanley, McGill University; Ari N. Meguerditchian, McGill Univ

ID: 242
Author: Dr. Peter Tanuseputro
Title: Material Deprivation and Residential Instability are Associated with Increased Avoidable Mortality in Ontario, Canada, a Population-Based Study from 1993 to 2014
Type of Abstract: Oral

Objectives: To examine the association between marginalization and avoidable mortality (AM) in Ontario, Canada between 1993 and 2014.

Approach: Design: Retrospective, population-based cohort study

Participants: Ontarians who died between 1993 and 2014 (N=1,740,158). Each individual was assigned to a quintile of neighbourhood marginalization using the Ontario Marginalization Index based on four dimensions: material deprivation, residential instability, dependency, and ethnic concentration.

Outcome: Avoidable mortality (AM) reflecting preventable and treatable causes of death, using ICD-10 codes from the Canadian Institute for Health Information

Analyses: Multivariate logistic regression analyses examined the association between marginalization and mortality controlling for age, sex, urban/rural location, and chronic conditions. We examined AM vs. non-AM, AM – preventable vs. AM – treatable, and premature vs. vs. non-premature mortality.

Results: Amongst premature deaths (age<75), those living in the most materially deprived (OR: 1.17, 95% CI: 1.15-1.20, p <.0001) and residentially instable (OR: 1.11, 95% CI: 1.09-1.13, p <.0001) areas were more likely to have an AM than the least marginalized areas. Those in areas of high dependency and ethnic concentration had the similar odds (OR: 0.91, 95% CI: 0.89-0.93, p<.0001) of having an AM than the least marginalized areas. Of AM's, similar trends were noted amongst the dimensions for a likelihood of a preventable (versus treatable) cause of death. In analysis of all-cause mortality, those living in areas of increasing material deprivation were more likely to have a premature death while residential instability and dependency were strong predictors of having a non-premature death (age≥75)

Conclusion: Areas with higher residential instability and material deprivation have higher AM while areas with higher dependency and ethnic concentration offer a protective effect. Future studies may wish to examine how the association between marginalization and AM changes over time as one method to monitor the impact of targeted interventions.

All Authors: Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Austin Zygmunt, University of Ottawa; Claire Kendall, University of Ottawa c/o Bruyère Research Institute; Paul James, University Health Network; Isac Lima, ICES uOttawa

ID: 347
Author: Dr. Tim Tenbensel
Title: Are innovative models of community-based primary health care able to traverse the 'barbed-wire fence' between primary medical and non-medical care, and if so, how?
Type of Abstract: Oral

Objectives: In most health systems, the funding streams for primary medical care (ie family physician services) are effectively separated from the funding of non-medical care. Our paper explores the extent to which this 'barbed-wire fence' constitutes a significant barrier to providing/offering integrated models of community-based primary health care.

Approach: We conducted 60 semi-structured interviews with policy and organisational stakeholders from nine case studies of innovative, community-based primary health care models across three jurisdictions (Ontario, Quebec, and New Zealand) as part of the cross-national iCOACH (integrated care for older adults with complex health needs) research project. The data were coded and analysed in terms of three key questions – (i) (how) does the separation of funding streams operate in each case study?; (ii) how does it affect the capacity to deliver integrated services?; and (iii) what strategies are adopted to mitigate the effects of the this separation of funding streams?

Results: Our findings are that the 'barbed-wire fence' between the funding of primary medical and non-medical care is a ubiquitous feature across all case study settings. It is sometimes formalised in policy and institutional arrangements, but also applies in contexts where policies enable, permit and/or openly encourage integrated funding. The 'barbed-wire fence' places significant constraints on the capacity of case study models to develop integrated models of care. Many case studies were adept at developing complex 'workarounds' to mitigate the effects of separated funding, but these required considerable time and effort to create and maintain.

Conclusion: While fragmentation of funding is commonly identified as a significant barrier to integrated care, our findings suggest a particular dimension of this fragmentation – the distinction between funding of primary medical care and broader primary health care services – requires further attention to its causes and strategies for mitigating effects

All Authors: Tim Tenbensel, University of Auckland; Mylaine Breton, Universite de Sherbrooke; Yves Couturier, Unversity of Sherbrooke; Fiona Miller, University of Toronto; Frances Morton-Chang, University of Toronto; Allie Peckham, Arizona State University; Walter Wod

ID: 507

Author: Dr. Alene Toulany

Title: Association Between Primary Care Continuity and Acute Mental Health Outcomes in Transition-age Youth with Severe Mental Illness

Type of Abstract: Oral

Objectives: To describe health service utilization for transition-age youth with severe mental illness and analyze the association between primary care continuity during the transition period and subsequent need for acute care mental health services.

Approach: Population-based retrospective cohort study using linked administrative health data of youth ages 12 to 17 with a hospitalization for schizophrenia and related psychotic disorders (SZ), eating disorders (ED), or mood and affective disorders (MAD) between April 1, 2002 and April 1, 2010 in Ontario, Canada. Primary and mental health care use was described before (age 12-17 years), during (age 17-19 years), and after the transition period (age 19-23 years) to adult care. Poisson regression models tested the association of primary care during transition (continuous care, different provider, or none) and mental health-related hospitalizations and emergency department visits after transition.

Results: Among 3183 youth with severe mental illness, the majority (n=2,052, 64.5%) received continuous primary care during the transition period. Rates of mental health-related outpatient visits to GP/FPs increased after age 19 for youth with SZ and MAD and decreased to psychiatrists for all mental health conditions (p < 0.01), whereas rates of mental health-related admissions increased for youth with SZ and MAD (p < 0.01), but not for ED. Compared with continuous care during the transition period, no primary care (n=190) was associated with a 50% increased risk of a mental health-related admission after the transition period (aRR 1.50, 95% confidence interval 1.11, 2.02). Continuous primary care was not associated with mental health-related emergency department visits.

Conclusion: In the context of decreasing specialist mental health visit rates after age 19, ensuring adequate access to primary care during the transition period may improve mental health outcomes in young adulthood.

All Authors: Alene Toulany, University of Toronto / Hospital for Sick Children; Therese Stukel, ICES; Paul Kurdyak, CAMH; Longdi Fu, ICES; Astrid Guttmann, ICES

ID: 175
Author: Ms. Laura Tripp
Title: Supporting high-quality public and patient engagement: Assessing the feasibility of the Public and Patient Engagement Evaluation Tool (PPEET)
Type of Abstract: Oral

Objectives: The Public and Patient Engagement Evaluation Tool (PPEET) was developed to meet the growing demand for tools to evaluate engagement of citizens and patients in the health system. We assessed the feasibility of the PPEET, as a generic evaluation tool, across seven health system organizations in Ontario.

Approach: We assessed tool feasibility in a variety of different organizational settings, engagement activities and populations through real-time observation of tool implementation. We collaborated with 7 Ontario health system organizations, including health care delivery organizations (n=4), provincial health agencies (n=2) and local health integration networks (n=1). Each collaborating organization implemented the PPEET to evaluate 2–5 engagement activities. Feedback on the feasibility of the PPEET was collected through a series of usability questions at the end of the evaluation questionnaires and debriefing interviews with the tool implementers in each organization. Results from the participant questionnaire are the focus of the presentation.

Results: A total of 159 participants completed the feasibility questions and eight interviews were conducted with those involved in the implementation process. Overall, participants felt that the PPEET participant questionnaire was easy to use and that important questions were not missing. The tool was identified as being useful across a number of health system settings, and a number of different types of activities ranging from one-time meetings to longer-term panels. Some questionnaire modifications were suggested including changes to allow for greater tailoring of the tool to different respondent groups, ensuring the tool is useful for longer-term engagement activities, additional open-ended and/or engagement-specific questions, and the importance of outlining a mechanism for sharing evaluation results with respondents. Tool modifications to reflect these results are currently underway.

Conclusion: The PPEET aims to improve public and patient engagement practice by assessing the quality of engagement activities carried out within organizations across the health system using a common evaluation tool. Results suggest the PPEET can be successfully implemented across a range of organizations and engagement activities with some suggested modifications.

All Authors: Laura Tripp, McMaster University; Julia Abelson, McMaster University; Sujane Kandasamy, McMaster University; Paula Rowland, ; Kristen Burrows, McMaster University

ID: 401
Author: Ms. Laura Tripp
Title: Supporting high-quality public and patient engagement in Ontario's health system: Results from the implementation of the Public and Patient Engagement Evaluation Tool (PPEET)
Type of Abstract: Oral

Objectives: Health system organizations are increasingly engaging with patients and citizens to shape their organizations' activities and programs. Using a recognized evaluation tool, we assessed a wide range of public and patient engagement (PPE) activities across seven health system organizations to provide a snapshot of current PPE efforts in Ontario.

Approach: The Public and Patient Engagement Evaluation Tool (PPEET) includes 3 questionnaires, each assessing the quality of engagement practice from the perspectives of public/patient partners, engagement practitioners and senior organizational leadership. The PPEET was implemented in seven health system organizations in Ontario including health care delivery organizations (n = 4), provincial health agencies (n=2) and local health integration networks (n=1). Each organization implemented the tool to evaluate 2 – 5 engagement activities over a one-year time period. Questionnaires were administered in person or on line following completion of the engagement activity. The presentation focuses on the results from the participant questionnaire.

Results: 186 individuals completed the PPEET participant questionnaire across 19 engagement activities including knowledge exchange activities (n=2), single-day or short-term activities (n=10) and long-term patient advisory roles (n=7). Respondents were predominantly female (65%), well educated (30% completed a professional or graduate degree), evenly distributed across age groups and either working full time or retired (69%). Pooled mean ratings for the 14 scaled evaluation statements fell between 4.02 and 4.44 out of 5 on a 5-point scale with ranges between 1 and 5 for 9 of the 14 statements. Thematic analysis of open-ended comments yielded a more critical set of perspectives; specifically, the need for clearly-defined and communicated objectives, opportunities for 'deep' and 'inclusive' engagement, and a feedback loop demonstrating how engagement results will be used.

Conclusion: The use of a common evaluation tool provides the opportunity to evaluate PPE practice across a variety of health system settings. Our aggregated results highlight the strengths of current PPE practice and areas in need of attention to support high-quality PPE in the future.

All Authors: Laura Tripp, McMaster University; Sujane Kandasamy, McMaster University; Julia Abelson, McMaster University; Kristen Burrows, McMaster University; Paula Rowland,

ID: 435
Author: Ms. Laura Tripp
Title: Supporting mammography screening policy in the face of uncertainty: Citizen and mammography program policy perspectives
Type of Abstract: Oral

Objectives: Evolving scientific evidence has raised questions about the net benefits of organized mammography screening programs. In response, greater attention is being given to supporting women to make informed decisions about mammography screening. We engaged Ontario citizens and experts in this field to solicit their perspectives on this issue.

Approach: Expert and citizen perspectives on mammography screening were captured through: (1) three regional citizen deliberations held with women of screening-age (50 – 74 years, no history of breast cancer) and one provincial deliberation with citizens from across the province; (2) an online survey of 2,000 screen-eligible women (50 – 74 years); and, (3) interviews with experts in mammography screening. Qualitative data were analyzed using qualitative description and the principles of constant comparison. Survey data results were summarized using descriptive statistics. Results for screened vs. unscreened respondents were compared using two-sample t-tests (continuous) and chi-squared tests (categorical).

Results: Our results highlight women's current decision-making processes and the barriers to informed decision-making from the perspectives of citizens and experts. Results from both the citizen deliberations and population survey revealed that women are often unaware of the risks of screening and are not confident when making decisions. There is a desire for informed decision-making supported by primary care providers yet there are barriers to achieving this. From the citizens' perspective this includes the lack of balanced information, fear of breast cancer, long-held beliefs and social norms. On the expert side, challenges cited include the lack of agreement within the scientific community (particularly in relation to estimates of the magnitude of overdiagnosis), difficulties in measuring informed participation, and the challenges of working within a public-facing program.

Conclusion: Policy-makers, citizens and health care professionals are making decisions about mammography screening in the face of scientific uncertainty. Our results highlight the need for a careful weighing of evidence and values to support policy making in this scientifically challenging, emotion-laden and politically sensitive area.

All Authors: Laura Tripp, McMaster University; Julia Abelson, McMaster University; Melissa Brouwers, ; Jonathan Sussman, McMaster University

ID: 33
Author: Ms. Lynda van Dreumel
Title: Medical Assistance in Dying: Residential Hospice policy formulation in Ontario.
Type of Abstract: Oral

Objectives: Palliative care Residential Hospices (RH) are a potential site for the provision of medical assistance in dying (MAiD). In Ontario, RHs are free to choose if they participate in MAiD. This study examined the factors influencing how a RH in Ontario formulated their policy on the provision of MAiD.

Approach: An explanatory case study was designed where one RH in Ontario was selected as a relevatory case. Semi-structured interviews were completed with key decision makers, employees, clients and families of the RH. Relevant policy literature was also examined, including MAiD policy documents and position statements from federal and provincial governments, residential hospice providers, hospice palliative care associations, regulated health professionals, and end of life interest groups. Findings were triangulated using MAiD academic literature from other jurisdictions and key informant interviews representing broader provincial perspectives. The influences of ideas, interests and institutions were analyzed utilizing a 3-i framework.

Results: Hospice palliative care has developed from a historical grassroots movement that promotes the idea that quality hospice palliative care neither hastens death nor prolongs life. Provincial policy funding legacies (institutions) have resulted in roughly half of RH funding coming from the province and the balance coming from community donors. The province's key interest is to ensure that the public has access to palliative care services, including MAID; while the donors' primary interest is to support an organization that aligns with their values and beliefs. In formulating their position on MAiD, RH decision makers are faced with resolving the tension between the historical values of the hospice palliative care movement and the interests of their provincial and donor stakeholders.

Conclusion: Institutional effects of RH funding structure influences RH decision makers to prioritize the interests of community donors, the less stable source of funding, in order to minimize financial impact to the organization. RH decisions on MAiD policy are more likely to be aligned with community donor interests.

All Authors: Lynda van Dreumel, McMaster University

ID: 534
Author: Mr. Jacob Van Nest
Title: Evaluating the Edmonton Zone Triple Aim Initiative: building and implementing a shared measurement system for healthcare improvement with complex, vulnerable clients.
Type of Abstract: Oral

Objectives: The Edmonton Zone Triple Aim Initiative supports Complex High Needs Patients in Edmonton's Eastwood Area. The aims of the initiative are to improve population health, enhance experience of care, and reduce per capita costs. The objective of the outcome evaluation was to determine whether participating organizations had met these aims.

Approach: Participants in the Triple Aim Initiative include over 40 providers and 445 patients identified by seven different community Teams. The Evaluation Team used Triangulation Theory in an effort to validate the data for all Teams. Data collection for quantitative and qualitative measures come from a variety of sources including accessing administrative data, as well as conducting patient and provider surveys, interviews, and focus groups. Analysis of system level data, such as emergency department visits, inpatient stays, and physician continuity includes descriptive and statistical modeling approaches in a pretest-posttest study design.

Results: The outcome evaluation demonstrates that participating Teams improved care for their patients. There were significant improvements in experience of care metrics for patients across all Teams, demonstrating progress toward the aim of enhancing patients' experience of care. Additionally, all teams performed significantly better in experience of providing care metrics than a comparison group, achieving an added fourth aim that was set for the initiative. Some Teams demonstrated a reduction in acute care utilization and cost, as well as higher continuity of care with a family physician. There is evidence that suggests Teams who scored higher on elements of the Managing Complex Change model (vision, skills, incentives, adequate resources, and action plan) were more likely to achieve better patient health outcomes in the evaluation.

Conclusion: Lessons learned from this evaluation are critical for the initiative moving forward and for those working with similar populations. Our experience with the Triple Aim Initiative will help build support for the development and implementation of a shared measurement system as we continue to foster our collaborative healthcare improvement partnerships.

All Authors: Jacob Van Nest, Alberta Health Services; Eric VanSpronsen, Alberta Health Services; Christine Vandenberghe, AHS; Melanie Hennig, Alberta Health Services; Lana Socha, Alberta Health Services; SungHyung Kang, Alberta Health Services; Xiaoming Wang, Alberta

ID: 606
Author: Ms. Valerie Ward
Title: Formal caregivers' experiences in the provision of MAiD: A scoping review
Type of Abstract: Oral

Objectives: The objective of this scoping review is to examine the professional experiences of formal caregivers in the provision of MAiD.

Approach: Medical Assistance in Dying (MAiD) became legal in Canada in 2016, joining Belgium, Netherlands, Luxembourg, Columbia, Switzerland, and some American States. Healthcare providers caring for patients at the end of life may report intense emotions, higher rates of burnout, and greater job dissatisfaction. Additionally MAiD contradicts typical medical philosophy, which posits that one should not hasten death, and should do no harm (Hippocratic Oath). However, what remains unknown is the experiences of formal caregivers in the provision of MAiD. A scoping review method was used on 7 databases, generating 761 results. 26 papers were analyzed in this study.

Results: Most of the research to date is from Europe, focusing on physicians and nurses. Some healthcare providers reported positive, such as increased meaning, spiritual growth, and negative emotions, such as anxiety, or fear, and some may experience intense moral conflict when responding to a patients request for MAiD and/or providing MAiD. Healthcare providers may benefit from discussing their experiences with their colleagues, or family, or professionals as a form of support. However, little research exists documenting the support strategies that are currently used by healthcare providers involved in the provision of MAiD.

Conclusion: Caring for terminally ill patients is associated with burnout, job dissatisfaction, compassion fatigue; putting supports in place may support HCP's in the provision of MAiD. Understanding the experiences of healthcare providers in the provision of MAiD is of utmost importance in order to create optimal strategies to support caregivers.

All Authors: Valerie Ward, UBC; Shannon Freeman, University of Northern British Columbia

ID: 335
Author: Dr. Grace Warner
Title: Using case management functions to connect patients and their family caregivers nearing end of life with informal and formal community-based services/supports; A realist review.
Type of Abstract: Oral

Objectives: The objective of this realist review was to partner with family caregivers and health-system knowledge users to synthesize the literature on how case management can connect patients and their family caregivers nearing end-of-life to critical informal and formal community-based services/supports to improve the delivery of community based palliative care.

Approach: The RAMESES protocol for conducting realist reviews was followed. Librarian assisted systematic searches of the research literature and iterative consultations with knowledge user partners occurred in two jurisdictions. Three reviewers screened the articles, and a Delphi process was used to determine relevant outcomes. The literature is being organized into preliminary theories to describe how particular contexts catalyze the use of case management mechanisms in community-based palliative care to generate improved patient, family caregiver and health-system outcomes. These context-mechanism-outcome configurations will be used to construct a theoretical framework of how case management functions improve community based palliative care in different contexts.

Results: The team screened 2389 articles, extracting data from 161. Articles were categorized by relevancy and by key outcomes identified during the Delphi process with key stakeholders (health system representatives, family members, clinicians). Outcomes were to improve: engagement of family/patients, case-management functions within teams, policy frameworks to support integration, and a palliative approach to care. Most included literature was describing mechanisms such as case-management functions or palliative approaches to care. There was a dearth of literature identifying what informal community services/supports are deemed critical to help patients remain in the community at end-of-life, or how to involve patients/families in their plan of care. Preliminary ideas on services/supports are being identified through research exploring patients/families' needs and the public health approach to palliative care could improve context.

Conclusion: The literature suggests community-based palliative care is still adopting a more health services delivery model and the adoption of a more inclusive model that integrates health and community services/supports through case management functions is still in its infancy. Recommendations will focus on mechanisms that help catalyze innovative community-based palliative care.

All Authors: Grace Warner, Dalhousie University; Lisa Garland Baird, PEI SPOR & PIHCI Network; Kothai Kumanan, Primary Health Care, Nova Scotia Health Authority; Robin Urguhart, Dalhousie University; Beverley Lawson, Dalhousie Family Medicine; Tara Sampalli, Research,

ID: 393

Author: Ms. Rachel Warren
Title: Associations between socioeconomic status and receipt and completion of cancer treatment and supportive care in Ontario, Canada
Type of Abstract: Oral

Objectives: This study examined associations between socioeconomic status and receipt of treatments and services, and completion of prescribed courses of radiation and chemotherapy, at a regional cancer centre in Ontario, Canada.

Approach: A longitudinal cohort study design involving 297 breast cancer patients. Individual level demographic data were collected from patient surveys. Indicators of need for cancer treatments (disease stage at diagnosis) were obtained from pathology reports and clinician notes. Indicators of need for supportive care (patient-reported assessments of depression, anxiety and wellbeing) were collected from cancer centre databases, as were data on chemotherapy and radiation therapy regimens and treatments. Analysis examined whether, for a given level of need, receipt of treatments and services, and completion of prescribed number of chemotherapy or radiation treatments, varied by patient income, education or occupation.

Results: No association was found between socioeconomic status and type of surgery received, or receipt of radiation or chemotherapy. However patients with highschool education or less were significantly less likely to receive the number of treatments expected for their chemotherapy regimen. Among patients who reported high levels of depression, anxiety or lack of wellbeing, there was no association between SES and use of supportive care services.

Conclusion: Population studies often cite access to a cancer centre as a factor in SES disparities. This study supports the conclusion that, among patients who consult with an oncologist, receipt of treatment and services appears equitable. The finding that treatment completion is associated with patient education merits further study.

All Authors: Rachel Warren, McMaster University; Diane Burns, Ontario Health - Cancer Care Ontario; Christina Sinding, McMaster University; Jonathan Sussman, McMaster University

ID: 601
Author: Dr. Walter Wodchis
Title: The Impact of Bundling Care on Acute Hospital Use: Real world evidence from Ontario's Integrated Funding Models
Type of Abstract: Oral

Objectives: We conducted a quantitative comparative effectiveness evaluation of six Integrated Funding Model (IFM) projects that began bundling care, including acute and post-acute care, for a variety of conditions ranging from heart failure to cardiac surgery. The objective was to determine whether IFMs affected acute hospital use during the bundle period.

Approach: IFM patients were identified by each project's registry and/or CIHI special project field 615 and linked to health administrative data. A pool of historical comparators from the same facilities and concurrent and historical comparators from comparator facilities that met the same enrolment criteria as the IFM patients were identified. IFM patients were matched on age, sex, and propensity score, to each comparator group and Difference-in-Difference analysis was completed. Outcomes included index Length of Stay (LOS), readmissions and total inpatient days and Emergency Department (ED) visits within bundle periods (commonly 60- days) and up to 90-days.

Results: Results for the first year included 2,783 patients enrolled in the projects. Combined results across all programs demonstrated significant comparative reductions in all utilization measures at 30-days, though only total acute days were significant at 60- and 90-days. There were important differences between programs in results for intervention and comparative outcomes. One large program has had considerable success in reducing index LOS, as well as readmission LOS, leading to a 25% comparative reduction in total inpatient days at 90 days post-index event discharge. A surgical program achieved a 29% comparative reduction in ED visits within 30 days. Two projects achieved comparative reductions in LOS for index admission, one project reduced ED visits, and another reduced readmissions. Patient variability was high in some groups.

Conclusion: Our findings represent data from the first year of participation. Surgical pathways were likely easier to achieve and resulted in short term wins. Although pathways for chronic conditions, such as heart failure, did not significantly reduce readmissions relative to comparators, the total acute days could be reduced by shortening LOS.

All Authors: Walter Wodchis, University of Toronto; Maritt Kirst, Wilfrid Laurier University; Gayathri Embuldeniya, Institute of Health Policy, Management and Evaluation, University of Toronto; Kevin Walker, University of Toronto

ID: 190
Author: Mr. Michael Wolfson
Title: Public Health Mode Personalized Medicine – Risk Stratification for Breast Cancer Screening
Type of Abstract: Oral

Objectives: Breast cancer screening is a major public health program, while using genetics to support personalized medicine would seem the antithesis. However, these two approaches can join powerfully with the possibility of using genetic information as the basis for risk-based screening. We provide quantitative results on the potential implicaitons

Approach: BOADICEA is a breast cancer risk stratification algorithm already in wide use around the world and in particular in Ontario for high risk screening. We have embedded the core BOADICEA algorithm into a simulation model for the Canadian population, the Genetic Mixing Model (GMM). GMM provides the empirical foundation for assessing risk stratification for a representative population by constructing an estimate of the multivariate joint distribution of family history (FH), presence of rare genetic mutations like BRCA1/2, and a polygenic risk score (PRS), derived from genome-wide association studies.

Results: Using a polygenic risk score (PRS) is far more useful for stratifying women according to their risk of breast cancer than the two most commonly used indicators at present: family history and rare genetic mutations. We have assessed a variety of combinations of these genetic indicators, in combination with offering universal risk assessment to women in Canada at various ages, and using different thresholds for categorizing women as being at high risk. The optimal age for risk assessment is in the 35 to 40 range. And the PRS is substantially more useful than family history or rare mutations for stratifying women for screening intensity by their risk of breast cancer.

Conclusion: Shifting from the current public health approach of primarily age-based screening for breast cancer, to one based on risk stratification, especially making use of recent advances in assessing polygenic risk, offers major potential benefits.

All Authors: Michael Wolfson, University of Ottawa

ID: 193
Author: Mr. Michael Wolfson
Title: Long Term Care (LTC) and Canada's Aging Population
Type of Abstract: Oral

Objectives: Given widespread concerns about the future costs of long term care for Canada's elderly, this study provides projections of the population affected and estimates of the associated costs of care. These projections then form the basis for assessing the future affordability of LTC and options for financing needed LTC.

Approach: Statistics Canada's LifePaths microsimulation model has been extended to incorporate a module on disability dynamics, estimated from the longitudinal National Population Health Survey, and modules drawing on a variety of other data sets to estimate both home care and institutional utilization by age, sex, and the severity of disability. In turn, stylized costs of LTC have also been incorporated. LifePaths has then been used to project disability prevalences, LTC utilization, and likely costs for coming decades. Additionally, the skewed distribution of LTC utilization has been projected.

Results: While LTC utilization will be increasing with Canada's aging population, the main impacts remain at least 20 to 25 years out – since the baby boom cohort is only now reaching retirement age, and LTC utilization becomes substantial only after age 85. Further, the distribution of LTC utilization is highly skewed, which renders the option of private LTC insurance highly problematic. Thus, continuation of substantial public funding is warranted. However, the form of this funding merits consideration. We will be projecting individuals' abilities to finance various amounts of deductibles and co-payments in light of projected maturation of the recently expanded Canada and Quebec Pension Plans.

Conclusion: We expect LTC costs will be increasing substantially over coming decades, but not as soon nor as rapidly as much of the popular press and is "demo doom" rhetoric suggests. Major uncertainty relates to the amount of unmet LTC needs, especially with declining availability of informal kin support.

All Authors: Michael Wolfson, University of Ottawa

ID: 302
Author: Ms. Judith Wong
Title: Alternative Level of Care Days: Non-payment for poor quality in Ontario hospitals
Type of Abstract: Oral

Objectives: Ontario's Quality-based Procedure (QBP) funding policy for cancer surgeries uses resource intensity weights, which may assign higher payments for alternative level of care (ALC) days. ALC days are a poor outcome for patients and health system. This funding policy research examines the impact of not remunerating hospitals for ALC days.

Approach: Cancer Care Ontario remunerates hospitals for cancer surgeries on a volume x price x average cost weight basis.The Canadian Institute for Health Information's (CIHI) resource intensity weight (RIW) methodology for Ontario inpatient stays was replicated. The cost weights were revised to exclude ALC days from the weight calculation and applied to hospitals' QBP cases. Using the provincial price for cancer surgery QBPs, the funding impact of removing ALC days from each cancer surgery case was determined. Hospital-level results were generated by aggregating the existing funding policy with a hypothetical policy of non-payment for ALC days.

Results: Revising payment policy by removing ALC days had a varying impact by cancer surgery disease site. For colorectal cancer surgeries, removing ALC days results in an average reduction in hospital cost weights of 0.047 with the largest reduction being 0.617. Relative to current payment amounts for colorectal cancer surgeries, the provincial price paid to hospitals was reduced by $52.78 per case. The aggregate impact on Ontario hospitals of non-payment for ALC days was $1.7 million. For prostate cancer surgeries there were no observed ALC days and therefore no change to funding from their removal.

Conclusion: Removing ALC days from QBP funding would better align funding policy with quality of care. Although the funding impact may not be large enough to impact hospital decision-making, and does not address care capacity in the community, this policy shifts financial risk of ALC days from the payer to hospitals.

All Authors: Judith Wong, Cancer Care Ontario; Katherine Sun, Cancer Care Ontario; Jonathan Wiersma, Cancer Care Ontario; Jason Sutherland, University of British Colombia; Shannon Milroy, Cancer Care Ontario

ID: 475
Author: Ms. Heather Worthington
Title: The Impact of a Household-level Deductible on Drug Use Among Lower Income Adults
Type of Abstract: Oral

Objectives: Several Canadian public drug plans have income-based deductibles. However, we have limited rigorous information on their impact, particularly for vulnerable populations. Therefore, we studied the impact of the deductibles used in British Columbia's Fair PharmaCare program on drug utilization among lower income adults.

Approach: We used a quasi-experimental regression discontinuity design to study the impact of BC rules that impose no deductible on households with incomes less that $15,000, compared to a 2% of household income deductible to those with incomes between $15,000 to $30,000. A second break at $30,000 requires households to spend 3% of net household income before receiving public coverage. We used 24 million person-years of data between 2003 and 2015 to study public drug plan expenditures and overall drug use.

Results: The move from no deductible to a 2% deductible and the move from a 2% deductible to a 3% deductible led to a decrease in the proportion of beneficiaries receiving benefits by 0.33 and 0.05 respectively, as well as substantial drops in the extent of public drug plan expenditures across the two thresholds ($59.94 and $26.12 respectively). Despite this difference in public subsidy, we found much smaller changes in total drug spending. We found a reduction of $26.00 in annual total drug expenditures at the $15,000 threshold (95%CI: -45.48 to -6.51, p=0.012). In contrast, we found no statistically significant change in total expenditures when households moved from deductibles of 2% to 3% of household income at the $30,000 threshold (estimate=$6.10, 95%CI: -24.08 to 11.89, p=0.48).

Conclusion: Income-based deductibles considerably impacted the extent of public subsidy for prescription drugs. For lower-income households making around $15,000, a 2% deductible led to a notable reduction in overall drug use and costs. However, a 2% versus a 3% deductible at $30,000 had no notable impact on drug use.

All Authors: Heather Worthington, UBC Centre for Health Services and Policy Research; Michael Law, UBC; Lucy Cheng, UBC Centre for Health Services and Policy Research; Sumit Majumdar, University of Alberta Department of Medicine; Kimberlyn McGrail, School of Populatio

Objectives: The Canadian health system relies on private financing for components of health care that fall outside the Canada Health Act. This includes a significant portion of prescription drugs, dental care, eye care, and private insurance premiums. We quantified recent changes in out-of-pocket health care spending by Canadian households.

Approach: Using data from 89,469 interview respondents to Statistics Canada's annual Survey of Household Spending from 2010 to 2014, we calculated inflation-adjusted per-household out-of-pocket spending on health care [Is this the same number as last time?]services in Canada, and by province. Further, we estimated the percent of household income spent out-of-pocket on health care services. We performed these estimates both overall and stratified by different levels of after-tax income and household demographic characteristics. All of our estimates used survey weights and estimation methods provided by Statistics Canada.

Results: We found that Canadian households spent an average of $2,251 out-of-pocket per household on health care in 2014 – a 6% decrease over 2010. The highest average spending in the years studied was 2013 at $2,523 per household. Spending on dental services, eye-care, and non-prescribed medicines and equipment remained relatively consistent over the 5-year period. However, household spending on prescription drugs decreased by an average of $123 per household, or 23%. In contrast, spending on private health insurance premiums increased from an average of $446 per household in 2010 to $694 in 2014 – a 56% increase. We will also present concentration curves to describe household spending by different income levels.

Conclusion: Out-of-pocket health spending has remained relatively constant in recent years, however spending on different types of health care has changed. While prescription drug costs have decreased, private insurance payments have increased quite dramatically. This changing landscape of private health care expenditures should be acknowledged and its impact on Canadians considered.

All Authors: Heather Worthington, UBC Centre for Health Services and Policy Research; Lucy Cheng, UBC Centre for Health Services and Policy Research; Michael Law, UBC

ID: 334
Author: Ms. Lisa Ye
Title: The Palliative Care Quality Standard: Guiding evidence-based, high-quality palliative care in Ontario
Type of Abstract: Oral

Objectives: To develop and implement a palliative care quality standard – a concise-set of evidence-based, measurable statements with associated quality indicators and supports for implementation – based on the best available evidence, for adults with progressive, life-limiting illness, their caregivers, and their healthcare providers.

Approach: Working in partnership, Health Quality Ontario and the Ontario Palliative Care Network conducted a systematic search for palliative care clinical guidelines published between 2011 and 2016 and an environmental scan for Ontario-specific measurement initiatives. A 25-member working group of clinicians and people with lived experience were recruited based on an open call and a skills matrix to ensure diverse representation. A modified-Delphi process was used to prioritize topic areas and overarching goals for focus of the standard. Quality statements and associated indicators were developed for each topic area based on clinical practice guidelines, evidence and working group expertise.

Results: Thirteen quality statements and associated indicators were developed based on the topic areas and overarching goals prioritized by the quality standard working group. The quality statements include: identification and assessment of needs, timely access to palliative care, advance care planning, goals of care and consent, person-centred care plan, management of pain and symptoms, psychosocial aspects of care, caregiver support, education, transitions, setting of care/death and interdisciplinary team-based care. In addition to statement indicators a set of indicators were selected to measure the overall success of the quality standard and include:

- • Percentage of decedents receiving palliative care services (home care, home visits, hospice)
- • Percentage of decedents who had unplanned emergency department visits
- • Percentage of deaths by location
- • Percentage of people/caregivers who rated their palliative care as excellent

Conclusion: The quality standard provides an evidence-based resource that defines what high-quality care should look like to help teams and providers prioritize improvement efforts and measure success. Associated products developed to accompany the quality standard include: a patient reference guide, an infobrief, and recommendations for adoption.

All Authors: Naira Yeritsyan, Health Quality Ontario; Lisa Ye, Health Quality Ontario; Ahmed Jakda, Ontario Palliative Care Network; Melody Boyd, Royal Victoria Regional Health Centre; Tara Walton, Ontario Palliative Care Network; Candace Tse, Health Quality Ontario;

ID: 446
Author: Mr. Alexander Yurkiewich
Title: Improving the Measurement of Equity across Health System Performance Data
Type of Abstract: Oral

Objectives: We have performed a methodological review of our health system performance measurement across an important stratification of equity in health care, geographic location. By applying a more robust methodology, we will be able to report more accurately on community health and outcomes of health care across the urban-rural continuum.

Approach: To advance our current methods for measuring equity in health care, we brought together an expert panel to review existing methods for stratifying health system performance data by geographic location. These methods were then tested against a core set of indicators reflective of health system performance. Future panel review will result in a recommendation that identifies the best method to use for measuring geographic stratification. Applying the recommended method across our suite of publicly-reported products will allow us to refine and standardize how geographic location is stratified, allowing us to better measure equity across health system performance.

Results: The expert panel identified three methods for consideration: Population Centre (POPCTR), Statistical Area Classification (SAC) and a hybrid POPCTR/SAC methodology. These three methods are currently being tested against a core set of health system performance indicators. Preliminary results for an indicator measuring ambulatory care sensitive conditions show that, across the health care quality domains of effectiveness and timeliness, there is variation in performance across the urban-rural continuum. This variation does not always present in a linear fashion, which may reflect differences in socio-demographic or socio-economic characteristics, health risk factors and health care access across the urban-rural continuum. When the full results become available, we will be able to expand on the preliminary results and provide conclusions for indicators across all quality domains of health care.

Conclusion: Identifying a robust methodology for measuring health system performance across geographic location will improve the rigour of our information, enabling better health system planning and decision-making. This review may also provide the basis for future methodological reviews and guide how we measure other stratifications of equity in health care.

All Authors: Alexander Yurkiewich, Health Quality Ontario; Sharon Gushue, Health Quality Ontario; Naushaba Degani, Health Quality Ontario; Laura Rosella, Dalla Lana School of Public Health, University of Toronto; Emmalin Buajitti, University of Toronto; Michael Campit

ID: 487
Author: Ms. Yingjun (Victoria) Zhu
Title: The Concepts of Canadian Population Grouping Methodology and Its Application
Type of Abstract: Oral

Objectives: CIHI's Population Grouping Methodology uses data from multiple sectors to create clinical profiles and to predict the entire population's current and future morbidity burden and healthcare utilization. This presentation illustrates how outputs from the grouper can be applied to healthcare decision making and planning processes.

Approach: The population grouping methodology starts with everyone who is eligible for healthcare, including those who haven't interacted with the healthcare system and those with no health conditions, providing a true picture of the entire population. The grouper uses diagnosis information over a 2-year period to create health profiles and predict individuals' future morbidity and expected use of select health care services.

Predictive models were developed using age, sex, health conditions and the most influent health condition interactions as the predictors. These models produce predictive indicators for the concurrent period as well as one year into the future.

Results: The power of the model lies in the user's ability to aggregate the data by population segments and compare healthcare resource utilization by different geographic regions, health sectors and health status.

The presentation will focus on how CIHI's population grouping methodology helps client's monitor population health and conduct disease surveillance. It assists clients with population segmentation, health profiling, predicting health care utilization patterns and explaining variation in health care resource use. It can be used for risk adjustment of populations for inter-jurisdictional analysis, for capacity planning and it can also be used as a component in funding models.

By comparing with other similar products in the world, CIHI's population grouping methodology has been proved to have similar or better predictive power.

Conclusion: CIHI's population grouping methodology is a useful tool for profiling and predicting healthcare burden and future system use, with key applications for health policy makers, planners and funders. The presentation will focus on how stakeholders can apply the outputs to aid in their decision making and planning processes.

All Authors: Yingjun (Victoria) Zhu, Canadian Institute for Health Information; Rachel Zhang, Canadian Institute for Health Information

ID: 157
Author: Lise Bjerre
Title: The Development of a universally accessible Canadian Medication Guide: A Panel Discussion
Type of Abstract: Panel of Related Speakers

Background: Ensuring universal access to high-quality, standardized medication information for both health care providers and patients would go a long way towards promoting evidence-based prescribing and patient safety, and, at a system level, cutting costs associated with treatment of medication-related ailments. A national stakeholder roundtable was convened in April 2017 to develop a vision, recommendations and action plan to address critical gaps in access to medication information in Canada. The vision and recommendations have been endorsed by a number of national health system stakeholders, and will be presented in a report of findings and recommendations from the panel to be published January 22, 2018.

Objective: To discuss the need for a Canadian Medication Guide, in the context of recent relevant developments in clinical practice, patient safety, digital health and health policy, and what it will take to build solutions that meet the medication information needs of both health care providers and patients.

Panelists: Dr. Lise M. Bjerre is a practicing family physician and Clinician-Investigator at the University of Ottawa Department of Family Medicine and Bruyère Research Institute whose research focuses on medication appropriateness. Dr. Bjerre leads the Rational Therapeutics and Medication Policy (RTMP) Research Group that hosted the above-noted Symposium and is Chair of the Steering Committee for the Canadian Medication Guide. Chris Power, CEO of the Canadian Safety Patient Institute delivered the keynote address at the Symposium, is a member of the Steering Committee for the Canadian Medication Guide and recently participated as a member of the federal advisory panel on healthcare innovation. Susan Sepa is Group Director of Clinical and Change Leadership at Canada Health Infoway, the national leader in digital health, and is also a Steering Committee member. Dr. Regis Vaillancourt is the President of the Ontario College of Pharmacy, an RTMP member and fellow of the Canadian Society of Hospital Pharmacists, the International Pharmaceutical Federation, and the Ordre de Pharmaciens du Québec. For 15 years he has collaborated extensively on the development of various tools to support clinicians in counselling vulnerable patients and is currently interested in the role women take in managing medication within their families. Joining them will be Maryann Murray, a patient representative with Patients for Patient Safety Canada, a program of the Canadian Patient Safety Institute. Together, this expert panel will be able to discuss, from a variety of critical perspectives, the need for a Canadian Medication Guide that addresses the medication information needs of both health care providers and patients, and what concrete steps must be taken to move towards that goal. Bilingual panelists will take questions in English or French.

Results: Audience members will develop a clear understanding of current gaps in access to medication information in Canada; the implications of these gaps for the practice of medicine, patient safety and our health care system; options to address these gaps and move towards a Canadian Medication Guide; and, the relevance of these issues in light of other recent, relevant developments in related fields.

All Authors: Lise Bjerre, ; Christine Power, Canadian Patient Safety Institute; Regis Vaillancourt, Children's Hospital of Eastern Ontario; Chad Leaver, Canada Health Infoway - Inforoute Santé du Canada

ID: 588
Author: Dr. Deirdre DeJean
Title: The Future of Long-Term Care and Home Care: What Canada Can Learn from International Experiences
Type of Abstract: Panel of Related Speakers

Policy-makers around the globe face the steep challenge of developing high quality and sustainable strategies to address the needs of aging populations. Home care and long-term care (LTC) systems are confronting growing demand, more complex patient needs, and limited capacity. In Canada, provincial decision-makers face substantial fiscal pressures and are strongly motivated to examine alternative finance and delivery models for home care and LTC from other OECD countries.

Innovative funding models that encourage a shift, where appropriate, away from expensive and overflowing institutions, while acknowledging the costs of such a shift on family and other informal caregivers, have proved extremely popular reform initiatives across a range of countries. Cash benefits -- that is, direct transfers of cash to the care recipient, or the caregiver, to pay for, purchase or obtain care services -- are an example of such innovation, and play a significant role in LTC systems in OECD countries. In Germany, for example, cash benefits were introduced in 1995 and are set at approximately half of the monetary value of in-kind benefits, with nearly 50% of those receiving care at home opting for cash payment in lieu of formal services.

This panel features leading experts in law and policy from Canada, Germany and the United States, and will explore how innovations in financing and delivery have the potential to reshape the landscape of both home care and LTC. The panelists are part of a CIHR-funded research team that is generating alternative policy options for Canadians policy-makers in home care and LTC, based on international experiences. Lorraine Frisina-Doetter, Senior Research Fellow and Lecturer at the University of Bremen, will present an overview of the German LTC system, with a focus on its strengths and weakness and evidence of its experience with cash benefits. Ali Hamandi, Trudeau Foundation Scholar and PhD Candidate, Health Policy Program at Harvard University, will discuss the US approach to public funding of home care and LTC through Medicaid, discussing the move to shift public funding from LTC to home care as a cost-saving measure, and the implications of this policy initiative. Amélie Quesnel-Vallée, Canada Research Chair in Policies and Health Inequalities, and professor in the Departments of Sociology and Epidemiology, Biostatistics and Occupational Health, McGill University, will present on the results of the Health Insurance Access Database, monitoring changes since 1990 on the financing mechanisms for LTC across the Canadian provinces, with a focus on specific programs in certain provinces (e.g., le cheque emploi-service in Quebec) that offer innovative ways of delivering services in the Canadian context. Finally, Colleen M. Flood, Director of the University of Ottawa Centre for Health Law Policy & Ethics, will provide a typology of factors for policy consideration prior to introducing cash benefits, including issues of quality and safety and the impact upon women's participation in the workforce.

All Authors: Deirdre DeJean, University of Ottawa; Colleen Flood, University of Ottawa Centre for Health Law Policy & Ethics; Amélie Quesnel-Vallée, McGill University ; Lorraine Frisina, Centre for Social Policy University of Bremen, Germany; Ali Hamandi, Harvard Univ

ID: 133
Author: Ms. Stephanie Garies
Title: Big data, big opportunities: exploring careers in population data science
Type of Abstract: Panel of Related Speakers

Population data science can be described as a multi-disciplinary field aimed at "integrating and analyzing data that pertain to individuals and their social, economic, biological and environmental characteristics and contexts." (IJPDS 2018, in press.) This field has recently emerged due to the increase of large, digitized health information databases, improved linkage methods to other health and non-health sources, and the many advances made in computing technology and analytic techniques. Students are in a prime position to take advantage of the growing career and educational opportunities in population data science, specifically as it relates to achieving meaningful improvements to the healthcare system and patient outcomes.

Attendees at this panel presentation will learn about the skills and qualities that contribute to an effective career in population data science; how one would acquire those skills; how a career in population data science can contribute to improvements in the health system and patient outcomes; and what future applications and innovations for big health data science are anticipated in Canada.

Our panel will consist of the following presenters:
1. Dr. Tyler Williamson, PhD (Senior Scientist for the Canadian Primary Care Sentinel Surveillance Network [CPCSSN]; Assistant Professor in Biostatistics, University of Calgary): Dr. Williamson will introduce the emerging field of population data science and describe the skills, qualities, and training that may contribute to a successful career in this area.
2. Dr. Lisa Lix, PhD, P.Stat (Professor, Department of Community Health Sciences & Director of the Data Science Platform, George & Fay Yee Centre for Healthcare Innovation, University of Manitoba): Dr. Lix will discuss the training opportunities and programs available for population data science in Canada, including the new Visual and Automated Disease Analytics (VADA) Program at the University of Manitoba.
3. Dr. Andriy Koval, PhD (CIHR Health System Impact Fellow at the University of British Columbia): Dr. Koval will present a current example of how big data can improve mental health and additions surveillance in the province of B.C. through his work developing a framework for "messy" transactional electronic health record (EHR) data from secondary and tertiary sources (such as detox facilities, community support, etc.).
4. Nathalie Le Prohon, MBA (Vice President of Healthcare, IBM Canada). Ms. Le Prohon will describe the future of big health data science in Canada, including the emergence of novel, innovative technologies and applications.

This panel presentation is hosted by the CAHSPR Student Working Group (moderated by SWG member Stephanie Garies) and thus, is targeted towards trainees (undergraduate, graduate, postdoctoral fellows); however, anyone who is interested in learning more about careers and training in population data science is welcome to attend.

All Authors: Stephanie Garies, University of Calgary; Tyler Williamson, University of Calgary; Andriy Koval, University of Central Florida; Lisa Lix, University of Manitoba; Claudia Sanmartin, Statistics Canada

Long term care (LTC) facilities provide 24-hour care to vulnerable older adults who cannot live safely at home. The majority of LTC residents are very old, have multiple chronic conditions, and experience significant physical and cognitive functional limitations. Unregulated care providers with little formal training (care aides) provide up to 90% of direct care in LTC – a physically and emotionally demanding job. Numerous quality concerns have persisted in LTC for decades, negatively affecting caregivers' quality of work-life and residents' quality of life. Translating Research in Elder Care (TREC) is a longitudinal program (2007-2022) of applied health services research, involving researchers, trainees, decision makers, care providers, residents and family/friend caregivers from across Canada, as well as researchers from the US and Europe. TREC's mission is to find practical solutions to improve quality of care and life of frail older residents, and quality of work-life of LTC staff. We have now started to leverage the success of TREC's 10-year history to contribute to a systematic transformation of residential LTC. In this panel, we will (a) give an overview of the TREC program of research, (b) present three studies in which trainees have key roles that illustrate how TREC is unique and innovative, and (c) outline TREC's future plans to contribute to transforming the LTC system. Modifiable features of care unit work environments (e.g. leadership, culture, interactions) are a key focus of TREC. TREC has demonstrated that more favorable work environments are associated with improved quality of work-life and best practice use by care staff, and with decreased symptom burden of LTC residents in the last 12 months of life. After an introduction to TREC, we will present a project based on TREC data (3,608 care aides from 275 care units in 84 Western Canadian LTC facilities) that illustrates how modifiable features of care unit work environments are associated with care aides' change-oriented organizational citizenship behaviours. Our third presentation will introduce one of TREC's cluster-randomized intervention trials – Improving Nursing Home Care Through Feedback On PerfoRMrmance Data (INFORM). INFORM is an innovative, pragmatic trial in 67 Western Canadian LTC facilities. The intervention is based on goal setting theory and audit and feedback evidence. INFORM compares the effectiveness of three approaches to feed back research data to care unit managerial teams in order to improve care unit performance. We will specifically present results of our comprehensive process evaluation (intervention fidelity). The fourth presentation will illustrate, based on TREC data (7,817 LTC residents in 18 LTC facilities that have participated in TREC since 2007), how length of stay (LoS) of LTC residents has changed by admission year (2008-2015), how these patterns differ across three Western Canadian health regions, and which resident and LTC facility characteristics are associated with LoS. We will specifically discuss policy implications of our findings. We will conclude our panel with an outlook of next steps TREC will take to increasingly focus on system-level change (e.g. scale up and spread of effective interventions, policy analysis, increased citizenship engagement).

All Authors: Matthias Hoben, University of Alberta; Carole Estabrooks, ; Tim Rappon, University of Toronto, Institute of Health Policy, Management, and Evaluation

ID: 404
Author: Dr. Janice Keefe
Title: Adding Life to Years for Long Term Care Residents
Type of Abstract: Panel of Related Speakers

Late life is time when older adults, and their caregivers, face health and social issues that can affect their well-being, particularly for those living in residential long term care (LTC) settings. Adding years to life is of little value without adding quality to those years. Yet, in this highly regulated complex environment, innovation in care practice that supports good end of life care can be stymied. The Seniors – Adding Life to Years (SALTY) team is a collaboration of well-established research teams in the area of residential LTC from across Canada with both national and international reach. The Team holds both scope and depth of expertise in clinical, critical, social and policy perspectives and employs an integrated Knowledge Translation (iKT) model engaging decision makers and individuals to whom the research will impact (residents, families, staff, volunteers). The Team, through multi-sites and multiple methods, aims to spread effective approaches to quality care and quality of life (QoL) within and across jurisdictions. This panel presentation brings together the Team's lead investigators to demonstrate the dynamic work underway whose results will inform policy and practice. The objectives of the panel are: 1) to highlight, through evidence-based research, the multiple ways that QoL in residential LTC could be improved, despite the many challenges faced within this care environment, and, 2) to show how the project, through its innovative models of iKT, trainee environment, and key stakeholder engagement (including residents, their caregivers, families, friends and volunteers), can shape policy and practice, enabling the best QoL during a persons last years in residential LTC. Dr. Janice Keefe, Director of the Nova Scotia Centre on Aging and the project's Scientific Lead, will present the overall approach to the SALTY project highlighting the iKT model of stakeholder engagement which is at the heart of the SALTY project and will present results from her team's analysis of policies from four jurisdictions that enable or act as barriers to resident QoL. Dr. Carole Estabrooks, Principal Investigator of the Translating Research in Elder Care (TREC) research program, will describe how her team is utilizing interRAI data to develop an approach that will enable researchers, policy makers and care facilities to validly and reliably measure quality of end of life care. Dr. Ivy Bourgeault, Lead of the Canadian Health Human Resources Network, will discuss a novel method for examining relational approaches to care in LTC and Dr. Denise S. Cloutier, Social Gerontologist and Health Geographer, will share insights from her team's evaluation of an Island Health, British Columbia, implementation project aimed at integrating a palliative approach in LTC.

All Authors: Janice Keefe, Mount Saint Vincent University; Carole Estabrooks, ; Ivy Bourgeault, University of Ottawa; Denise Cloutier, University of Victoria

ID: 568
Author: Dr. Matthew Menear
Title: The future of collaborative mental health care in Canada: Moving from vision to reality
Type of Abstract: Panel of Related Speakers

Collaborative mental health care is an approach to patient-centered care that emphasizes interprofessional collaboration as the foundation for improving access to evidence-based mental health and substance use care in primary care. In collaborative mental health care, healthcare providers from a variety of primary care and mental health settings work together to offer mutual supports and more coordinated, complimentary services. In 2011, the College of Family Physicians of Canada and the Canadian Psychiatric Association published a position paper that outlined a vision for collaborative mental health care in Canada and presented recommendations for achieving this vision. However, more than five years later and in the midst of primary care and mental health care reforms, implementation of collaborative care remains highly variable both across and within Canadian provinces.

This panel will describe several avenues for shaping the future of collaborative mental health care in Canada and present clear recommendations that help researchers, practitioners and policymakers work together to make this new vision a reality.

Panel members will discuss the following topics:
- Dr. Nadiya Sunderji will discuss the importance of quality measurement and improvement for collaborative mental health care. Specifically, greater efforts must be made to implement evidence-based models of care and to evaluate what has been implemented, thus generating new practice-based evidence. Dr. Sunderji will present her team's quality framework for collaborative mental health care, which can be used as a resource to better define, evaluate, and improve collaborative care.
- Dr. Matthew Menear will discuss the importance of patient and family engagement in the delivery and planning of collaborative mental health care. Strategies for engaging patients in families in care, such as involvement in shared decision-making, supports for self-management, and peer and family supports, are not well described in collaborative care models and not commonly adopted in practice. Similarly, little effort has been made to actively involve patients and families in the planning and evaluation of collaborative mental health care services. Dr. Menear will present findings from a realist review of patient and family engagement strategies in collaborative mental health care, highlighting the concrete steps that can be taken to achieve greater engagement.
- Dr. Rachelle Ashcroft will discuss the need for supportive contexts for collaborative mental health care. The ability of providers to delivery timely, high-quality mental health care in primary care is influenced by a range of factors operating within broader team, organizational and system contexts, notably the various financial and non-financial incentives that impact teams and clinicians. Ensuring that these incentives are aligned and supportive of effective collaborative care practices is of critical importance. Dr. Ashcroft will present findings from a large grounded theory study examining the influence of incentive systems on the quality of mental health care within Family Health Teams in Ontario.

Dr. Ruth Lavergne, Chair of the CAHSPR Primary Healthcare Theme Group, will moderate the session and explore panelists' views on challenges and opportunities for advancing their vision, and offer concluding remarks on how recommendations apply to primary healthcare more broadly.

All Authors: Matthew Menear, Laval University; Ruth Lavergne, Simon Fraser University; Rachelle Ashcroft, University of Toronto; Nadiya Sunderji, University of Toronto

ID: 350
Author: Dr. Samiratou Ouédraogo
Title: Contributions of CIHR Health System Impact Fellows to Equitable Health Systems across Canada
Type of Abstract: Panel of Related Speakers

Health inequities are avoidable differences in health that are socially unjust and limit the ability for individuals to reach their full potential. Health inequities are largely attributable to inequities in the social determinants of health (SDOH). It is widely accepted that the SDOH cause significant direct and indirect costs to health systems, thus requiring urgent, inter-sectoral, whole-of-government attention and action. While Canada has played international leadership role in generating global evidence about the SDOH and resulting health inequities, there has been limited, meaningful actions to reduce health inequities within health system transformation initiatives.

To optimize health outcomes for all individuals in Canada, contemporary health systems must move beyond traditional delivery and service provision to embed health equity into their core business. Policy reforms integrating innovative frameworks and strategies within the health system may enable planning and implementing equitable health care, and SDOH. A diversity of evidence-informed initiatives and interventions focused on health services, health promotion and disease prevention, and broader determinants of health are also required to improve health system efficiency and support sustainable and population health outcomes.

The Health System Impact (HSI) Fellowship was launched by the CIHR to help prepare a cadre of the country's up-and-coming brightest minds, with a doctoral degree in Health Services and Policy Research or a related field, for successful careers as leaders of evidence-informed health and health system improvement. This panel reports on how these Fellows, as embedded researchers in health system and health policy-related organizations across Canada, are contributing to reducing health inequities. The presentations and discussions with audience members will allow identifying needs, gaps and areas for improvement.

- Samiratou Ouédraogo will present an overview of how inequities are perceived by the HSI fellows and mentors and integrated into the research projects.
- Farah Mawani will share work of the Knowledge Translation Platform for Equity-focused Health Evidence and Research network's non-communicable disease (NCD) Inequities Initiative, aiming to propose national- and global-level NCD equity indicators, and an inclusive process to developing them.
- Fatheema Subhan will present an overview of the current health care programs and policies in Canada to improve diabetes management in Indigenous communities.
- Jane Polsky will discuss the recent focus on incorporating data on SDOH into Ontario's Institute for Clinical Evaluative Sciences, a research institute traditionally focused on administrative health data and health services research.
- Jonathan Lai will present on the gaps in health care for people with developmental disabilities, particularly after they age-out of pediatric care and transition into adult care, and introduce a model of medical and dental care currently piloted in Montreal for adults with developmental disabilities to address this issue.
- Meaghan Sim will present an overview of the development of the population health policy framework for the Nova Scotia Health Authority.

Following their brief presentations, panelists will each discuss their recommendations for integrating equity into:
   a. Canada's health system;
   b. Training/fellowship programs.

All Authors: Samiratou Ouédraogo, Institut national de santé publique du Québec; Jane Polsky, Institute for Clinical Evaluative Sciences - St. Michael's Hospital; Meaghan Sim, Nova Scotia Health Authority; Dalhousie University; Farah Mawani, MAP Centre for Urban Heal

In an ideal world, policy and decision makers pay close attention to research and have mechanisms for nimble implementation of evidence-informed policy and practice changes. In reality, those of us who work at the interface of research and policy know how rare that ideal situation is. Policy and decision makers are very busy individuals who spend a significant percentage of their working hours responding to the day-to-day operational issues that inevitably arise in our complex health systems. They are exposed to multiple, sometimes conflicting, evidence of varying levels of quality and completeness and have finite amounts of time to consider and integrate research evidence alongside other inputs. Consequently, researchers and KT specialists who want their studies to have an impact often need to expend extra effort to draw attention to their study findings, helping policy and decision makers understand how to act on them. In some cases, this leads to researchers being actively involved with policy and decision makers in making the case for change to higher authorities and/or researcher involvement in the implementation of specific evidence-informed changes.

While the drivers and utility of deep involvement of researchers in evidence-informed change are understandable, the practice is not without risk. One of the reasons that policy and decision makers seek out and use evidence from the research community is the perception that it is more likely to be objective and unbiased relative to advice from other sources. This raises a critical question of whether the same person or team who is actively advocating for, or working on, a particular policy or practice change can also be a source of objective advice.

This panel will begin with a brief presentation on the multiple expectations of applied researchers, noting how this can lead to researchers being drawn into a position that feels like, or may be, advocacy, regardless of whether that role is sought. Next, scenarios will be presented that intentionally include elements for which there might be debate over whether what is being offered by the researcher is advocacy or advice. Participants who provide their electronic consent to participate at the beginning of the session will enter responses to online polls about the scenarios via live polling. Results will be revealed during the session, and discussed by the panel and participants. Research Ethics Board approval will be obtained before the panel presentation, and a full report of the responses (without identification of any respondents) will be available to all participants after the conference.

All Authors: P. Alison Paprica, IHPME, University of Toronto; Kimberlyn McGrail, School of Population and Public Health, University of British Columbia; Centre for Health Services and Policy Research, University of British Columbia ; Walter Wodchis, University of Toro

ID: 344
Author: Dr. Robert Rivers
Title: Health Research in Action: the Experience of Engaging Government Health Policy Makers with Evidence
Type of Abstract: Panel of Related Speakers

Overview:

Health researchers are placed in a predicament when it comes to making policy recommendations. Recommendations are often based on an underlying assumption that all policy decisions are either evidence-based or evidence-informed. However, in practice, policy makers are bound by other considerations such as constitutional jurisdictions over health care, governmental administration practices, political will, and fiscal restraints.

Researchers working to reshape drug policy are at the forefront of bridging the divide between gathering evidence and influencing health policy decisions. The purpose of this panel is to offer audience members the opportunity to hear from researchers who have successfully engaged policy makers in evidence-based policy discourse.

Dr. Barbra Farrell is a researcher and practicing pharmacist who will share her experience on policies to reduce and improve prescribing for older Canadians. Dr. Tara Gomes will offer her insights on informing governments with her research on pharmaceutical policies surrounding opioid prescription. Dr. Marc-André Gagnon will discuss his work on the policies and politics behind drug pricing. Dr. Steve Morgan will share his expertise on the economics of a universal Pharmacare plan in Canada. Moderated by Dr. Robert Rivers who has experience advising on federal health legislation in the House of Commons and the Senate of Canada.

The panel will begin with a 10-minute introduction and overview from each of the four panel members on their areas of expertise and their experiences with getting evidence before policy makers. The remaining 20 minutes of the session will be dedicated to audience questions and discussion for panelists.

Academic researchers at all levels interested in learning about the role of evidence in the health policy and political process will benefit from attending this panel.

All Authors: Robert Rivers, Senate of Canada; Steven Morgan, University of British Columbia; Marc-Andre Gagnon, ; Tara Gomes, St. Michael's Hospital; Barbara Farrell, University of Ottawa

ID: 28
Author: Dr. María José Santana
Title: What Matters to Patients: Integrating patients' experiences into healthcare design, delivery and evaluation
Type of Abstract: Panel of Related Speakers

Patients bring a unique perspective and expertise to healthcare, their own. In Canada, some jurisdictions have been working hard to integrate what matters to patients into their care delivery models and performance evaluation strategies both at the point of care provider and at the system level. Given recent findings that patient-reported experiences and outcomes are associated with traditionally monitored metrics, such as readmission rates and patient safety measures, patient self-reports are now viewed not only as important, but necessary indicators of the quality the healthcare system.

A patient-centred care (PCC) model encourages healthcare providers, researchers and policy-makers to partner with patients, families and communities to design and deliver care. A PCC model focuses on what matters to patients and their families at both individual and system levels.

However, despite concerted efforts by some, for the most part, there continues to be a focus on care delivery and quality evaluation through the lenses of healthcare providers, researchers and policy-makers.

Our panel will present initiatives underway across Canada that are collaborating with Patient Partners to embed the values, preferences and needs of patients, families and communities into healthcare delivery and evaluation. Specifically, members of the panel will address:
1. Why it is important to co-design healthcare delivery and evaluation strategies with patients, families and community stakeholders;
2. What strategies have been trialed through this partnership;
3. What the measurable results of this partnership are showing on direct care delivery and evaluation of care and services.

There will be five presentations:
- Ms. S Zelinky, patient research partner, will discuss from the patient's perspective why partnering and co-designing our evaluation metrics with patients is important.
- Dr. M.J. Santana will discuss various measurement approaches, how to engage patients, families and communities in the co-design of these measurements, and how these can be quantified and utilized to inform policy.
- Dr. S Brien will discuss the importance of considering different audiences when reporting results that attempt to meaningfully include what matters most to patients, families and communities.
- Ms. L Cuthbertson will present on British Columbia's development of a central data warehouse that makes patient-reported experience and outcome data available to researchers and analysts for secondary analysis and linkage with other clinical and administrative databases to inform patient-oriented research.
- Ms. K Leeb will address how collecting and reporting about what matters to patients from a pan-Canadian perspective permits national benchmarking and learning from best practices as an important first step to co-design with patient and family partners.

At the end of this discussion, participants will have learned about initiatives at the local and pan-Canadian level that strive to capture what matters most to patients, families & communities and that embed that voice in the design of care models and evaluation of healthcare quality. Participants will also have heard about the potential to use patient-reported data for research purposes that will ultimately inform policy. The goal of this panel is to provide participants with a deeper understanding of initiatives underway in Canada aimed at improving and evaluating care through the lens of patients.

All Authors: María José Santana, Cumming School of Medicine, university of Calgary; Sandra Zelinsky, The Methods Hub; Susan Brien, Health Quality Ontario; Lena Cuthbertsone, British Columbia Ministry of Health; Kira Leeb, CIHI; Jeanie Lacroix, CIHI

ID: 418
Author: Dr. Jay Shaw
Title: Evaluation at the speed of implementation: Insights for scale-up and spread of virtual care technologies
Type of Abstract: Panel of Related Speakers

Background and Objective: The Ontario Telemedicine Network (OTN) pilot tested three new models of care supported by virtual applications for diabetes, mental health, and chronic kidney disease between the Autumn of 2015 and Summer of 2017. To determine efficacy and potential for scale, OTN partnered with the Women's College Hospital Institute for Health System Solutions and Virtual Care (WIHV) to rapidly evaluate the tools and inform provincial roll-out, and to inform a pragmatic and timely evaluation framework for future scale and spread of virtual care.

The purpose of this presentation is to report on the central themes that emerged from this large, complex multi-component project, and critically discuss future innovative strategies for implementing, scaling and evaluating virtual care technologies in Canadian health care settings.

Methodological Approach: The large scale evaluation drew on a mixed-methods approach, combining pragmatic randomized trial methodologies with qualitative process evaluation informed by Realist Evaluation. The methodologies were adapted to each individual technological intervention, which included:

- a mobile application designed to improve self-management and lower HbA1C among individuals with type 2 diabetes
- an online mental health platform to help with anxiety and depression
- a mobile application providing remote monitoring support for individuals receiving in-home peritoneal dialysis

Outcomes were assessed based on the Institute for Healthcare Improvement's Triple Aim: 1) population health, 2) patient experience and 3) healthcare costs.

Results and Discussion: The three individual studies showed both unique results and common themes across qualitative and quantitative data sources. As this panel is focused on the overarching lessons learned, here we highlight the lessons learned that pertain to implementation, scale, and evaluation of virtual care technologies in health care settings.

Technologies collecting data to support chronic disease management should share information with clinical teams: Where information related to chronic disease management was shared with health care providers, patients had greater opportunities to be engaged in their care.

Effort should be made to identify those patients who are most likely to engage with technological solutions: Engaged patients were more likely to receive benefit from the use of all technologies evaluated in this project; identifying appropriate patients who are more likely to be engaged is critical for wide scale technology implementation.

Health care providers should not simply be "engaged" in implementation, but should help to design the implementation process: Early, frequent, and sustained involvement of clinical teams regarding both the design of the clinical model and the implementation process was critical to success.

Procurement of virtual care technologies should be considered in advance: Building into the evaluation an examination of the complexities regarding how virtual technologies will be procured and sustained will promote more useful evaluation that directly informs scale/spread.

The panel will involve project leads summarizing the ways in which these key insights relate to each virtual care technology through specific examples, and reflections from OTN on the process of using evaluation insights for strategic and policy decision-making. The audience will be invited to engage in critical dialogue about future implementation, scale and spread of virtual care technologies.

All Authors: Jay Shaw, Women's College Hospital; Sacha Bhatia, Women's College Hospital Insitute for Health System Solutions and Virtual Care; Laura Desveaux, Women's College Hospital; Payal Agarwal, Women's College Hospital; Jennifer Hensel, Women's College Hospital

ID: 280
Author: Dr. Meaghan Sim
Title: Driving change: Reflections and experiences of CIHR Health System Impact Fellows as embedded researchers
Type of Abstract: Panel of Related Speakers

The complexity of today's health systems necessitates an interdependence between health and academic sectors. Traditionally, the role of academic institutions has been to prepare the future health workforce and generate evidence that can provide solutions to many health system challenges. In turn, the health system makes valuable contributions to the health of individuals, families, and communities by governing service and delivery. An emerging concept of learning health systems suggests that the two sectors must work cohesively to enable actions that meaningfully change health system practice. This concept has led to the development of the CIHR Health System Impact (HSI) Fellowship, which takes post-doctoral fellows out of the traditional academic setting and places them within a health system and/or health policy-related organizations. Embedding researchers in this manner has the potential to combine the two sectors and to propel evidence-informed changes in health services and policy across the country. We are just beginning to understand the impact that this transformation will have upon participating institutions, as well as the impact that will be experienced by those individuals currently being trained to step into these emerging roles.

In 2017-2018, CIHR launched the inaugural cohort of the (HSI) Fellowship. This new fellowship is a key component of the Canadian Health Services and Policy Research Alliance's Training Modernization Strategy, designed to provide a high quality, post-doctoral training environment to address critical challenges, and to optimize the impact of research within the health system and related organizations. HSI Fellows (n=45) across Canada are presently embedded within health system and health policy-related organizations with the purpose of developing professional and leadership experience, enhancing core competencies identified as critical for successful careers in health system and health policy settings (e.g., networking, project management, change management, knowledge translation), and fostering professional networks in areas that are not prioritized in traditional academic environments. The goal is to drive professional growth of recent PhD graduates, better preparing them for a wide range of career opportunities beyond the academy, and stimulating greater impact within health systems by leveraging the diverse backgrounds of the HSI Fellows.

Being an embedded researcher within a non-academic setting presents opportunities and challenges. Drawing on their diverse experiences, panelists will reflect on their experiences in the program, and how this unique training opportunity has impacted both their own career trajectories and contributions made within their embedded organizations in support of learning health systems. Panelists have been selected to represent diversity in background, geography, and host organization setting. This panel is closely aligned with the theme of CAHSPR 2018: "Shaping the Future of Canada's Health Systems", and will be of interest to academics and health system stakeholders alike.

All Authors: Meaghan Sim, Nova Scotia Health Authority; Dalhousie University; Jonathan Lai, McGill University; Katie Aubrecht, Nova Scotia Health Authority & Nova Scotia Centre on Aging ; Ivy Cheng, Sunnybrook Health Sciences Center; Mark Embrett, St. Francis Xavier U

ID: 409
Author: Dr. Joé T. Martineau
Title: Ethical issues associated with partnering with patients in healthcare research
Type of Abstract: Panel of Related Speakers

As interest and activities related to patient participation in different spheres of health increase, researchers, members of research ethics boards, health facility managers and professionals encounter more frequently questions and/or ethical dilemmas related to patient engagement in health research. Research with, and not on, the patient involves significant changes in the governance of research projects, in the composition of research teams, in the relationships between team members, as well as in the design and conduct of research itself. In many cases, actors are confronted with the various issues that emerge from these changes, without any clear direction. Indeed, faced with the emergence of the practice of engaging patients as research partners, there is still little literature addressing the subject. Yet, within the Standing Committee on Ethics of the Canadian Institutes of Health Research (CIHR), there is a consensus on the imperative to clarify these issues, to empower researchers and research organizations to enforce high ethical standards, and to help patient-partners understand their roles, rights and responsibilities. Across the country, these reflections are needed to support research teams (researchers, professionals and patients), members of research ethics boards, and managers of research institutions in this area.

This presentation aims to identify and discuss the most important ethical issues associated with patient engagement in health care research. For example, issues of instrumentalization of patients, opportunism and moral intent in patient engagement, power relations between different stakeholders, representativeness, legitimacy, confidentiality, as well as the question of the compensation of the patient-researchers, will be addressed.
In order to reflect on these issues, the panellists will also mobilize their own experience as patient-partners engaged in research, or as a researcher with a strong background in research conducted in partnership with patients. This presentation is not intended to discourage researchers, future researchers and patients from engaging in partnership research. On the contrary, we recognize the many benefits of this approach and as such, our goal is to emphasize the ethical issues associated with these initiatives in order to raise awareness of key players and help them to prevent and address potential challenges.

Panelists:
- Antoine Boivin: MD, Researcher at the CHUM Research Center (CRCHUM), Canada Research Chair in Patient and Public Partnership.
- Nicolas Fernandez: Assistant professor, Université de Montréal. Co-chair of the working committee on the ethics of patient engagement, CIHR.
- Marjorie Montreuil: Nurse, PhD, Postdoctoral Fellow, Institut de recherches cliniques de Montréal (IRCM) & Université de Montréal
- Ghislaine Michèle Rouly: Patient-researcher at the CHUM Research Center.
- Joé T. Martineau: Assistant professor, Department of Management, HEC Montréal. Patient-researcher at the CHUM.

All Authors: Joé T. Martineau, HEC Montréal; Antoine Boivin; Nicolas Fernandez, Université de Montréal; Ghislaine Michèle Rouly, Centre Hospitalier de l'Université de Montréal (CHUM); Marjorie Montreuil, Université de Montréal

Learning Health Systems (LHSs) speed healthcare improvement
by.....

1. integrating research into health systems, using
2. electronic medical and administrative data, so that
3. continuous improvement uses local real world evidence and monitoring to
4. engage patients, clinicians, and managers in
5. implementing improved clinical, community and health system interventions.

Our speakers will describe their experiences leading the implementation of Learning Health Systems in the United States and in Ontario, and a framework of competencies for a LHS.

This will be followed by a 30 minute interactive discussion between audience and panelists to explore other issues and examples of LHS and next steps for advancing LHSs in Canada.

- Chris Forrest, Professor of Pediatrics at the University of Pennsylvania will describe how PedsNet was built. PedsNet is a long established LHS in the US, conducting clinical and health services research integrated with care improvement in a virtual system, which, for example, looks after 1/3 of all children in the US with Inflammatory Bowel Disease. Chris will also describe his recently published new framework for training LHS researchers, with 33 competencies in 7 domains: (1) systems science; (2) research questions and standards of scientific evidence; (3) research methods; (4) informatics; (5) ethics of research and implementation in health systems; (6) improvement and implementation science; and (7) engagement, leadership, and research management. The real-world milieu of LHS research, the embeddedness of the researcher within the health system, and engagement of stakeholders are distinguishing characteristics of this emerging field.
- Jennifer Rayner is the Director of Research at the Ontario Association of Health Centres (AOHC), a 107 facility provider of interdisciplinary, community and patient centred primary care (PC), focused on equity and the needs of 600 000 mainly disadvantaged patients. Jennifer will describe how AOHC is becoming a LHS, using its centralized, structured-data EMR and high stakeholder engagement to build a responsive health system that efficiently delivers individualized care.
- Nicole Mittman is the Chief Research Officer at CCO, formerly Cancer Care Ontario, the steward of publicly funded cancer and renal services. CCO is establishing a new program for Palliative Care delivery, and is structuring this as a learning health system. Nicole will describe how LHS approaches are embedded into CCO's strategic plan, and how the LHS is being implemented in this new program.
- Merrick Zwarenstein, Professor of Family Medicine at Western University, and an ICES scientist has authored guidelines for conducting and reporting pragmatic randomized trials. He will describe how pragmatic trials support the improvement of real world health care delivery in LHSs: 5 KT trials in Ontario, conducted using ICES's administrative databases, and 5 in South Africa, to guide development and national scale up of nurse –physician substitution.

Merrick will then moderate a panel discussion with an emphasis on audience participation and interaction, rather than panelist presentations.

All Authors: Merrick Zwarenstein, Centre for Studies in Family Medicine

ID: 4
Author: Ms. Stephanie Aboueid
Title: Dietitians' approach to discussing weight in team-based primary care settings in Ontario
Type of Abstract: Poster

Objectives: Dietitians play an integral role in weight management. Previous research demonstrated that fat shaming is prevalent among health professionals. This is alarming as fat shaming is associated with poor psychological health in patients. Examining how dietitians are approaching the topic of weight in nutrition counselling sessions is of utmost importance.

Approach: In the aim of providing an in-depth understanding of how dietitians approach the topic of weight with patients, 11 one-on-one semi-structured interviews were conducted with primary care dietitians in Ontario. Dietitians were contacted through email via the Dietitian Network. Interested dietitians emailed the researchers and an interview was scheduled. All interviews were audio-recorded and transcribed verbatim using NVivo Software. Data analysis was conducted independently by two researchers. An inductive approach was used in order to prevent forcing pre-determined themes. The research team met to review descrepancies and allow for investigator triangulation.

Results: Our findings suggest that participating dietitians used these four main approaches: asking for permission to discuss the topic (8/11), focusing on lifestyle behaviours rather than weight (5/11), understanding the patient's priority (which may not be weight even if they were referred for that reason) (4/11), and being empathetic (1/11). Three dietitians mentioned that they did not feel that addressing the topic of weight was an issue as patients were already aware of the reason for the consultation. All participating dietitians reported that the Body Mass Index was not used for discussing weight, as it was perceived to be non-representative of a person's overall health. They seemed to focus more on lfiestyle changes rather than the weight itself.

Conclusion: Current practices of participating dietitians seemed to resonate well with the 5As (Ask, Assess Advise, Agree, Assist) of obesity management framework that suggests asking patients to discuss weight. The other approaches used seem to focus more on lifestyle behaviours rather than weight, which is recommended for reducing weight discrimination.

All Authors: Stephanie Aboueid, University of Waterloo; Catherine Pouliot , University of Ottawa ; Ivy Bourgeault, University of Ottawa; Isabelle Giroux , University of Ottawa

ID: 29
Author: Ms. Sadia Ahmed
Title: How to measure cultural competence when evaluating patient-centred care: A scoping review
Type of Abstract: Poster

Objectives: Patient-centred care (PCC) that is culturally competent is important in reducing disparities in health and healthcare. The purpose of this study was to identify patient-centred quality indicators and measures for measuring cultural competence in healthcare through a scoping review.

Approach: A search of electronic databases and the grey literature was conducted to identify relevant studies. Studies were included if they reported indicators or measures for cultural competence. We differentiated patient-centred quality indicators (PC-QIs) from measures: PC-QIs were identified as a unit of measurement of the performance of the healthcare system, which reflects what matters to patients and families, and to any individual that is in contact with healthcare services. In contrast, measures evaluate delivery of PCC, such as surveys or checklists. Data collected included publication type, country, ethno-cultural groups, and mention of quality indicator and measures for cultural competence.

Results: The search yielded a total 786 abstracts and sources, of which 16 were included in the review. 12 out of 16 sources reported measures for cultural competence, for a total of 10 measures. Identified measures were five provider self-assessments, two patient experience surveys, and three organizational assessment tools. Identified domains from the measures included: physical environment, staff awareness of attitudes and values, diversity training, and communication. Two out of 16 sources reported PC-QIs for cultural competence (92 structure & process indicators, 48 outcome indicators). Example structure indicators included presence of a policy such as: "policy in place that minimizes the use of family members as interpreters". There was greater representation of structure and process indicators and measures for cultural competence, compared to outcome indicators.

Conclusion: Monitoring and evaluating patient-centred care for ethno-cultural communities allows for improvements in the delivery of culturally competent healthcare. Future research should include development of PC-QIs for measuring cultural competence that also reflect cultural humility, and the involvement of ethno-cultural communities in the development and implementation of these indicators.

All Authors: Sadia Ahmed, University of Calgary; Fartoon Siad, University of Calgary; Kimberly Manalili, University of Calgary; Diane Lorenzetti, University of Calgary; Tiffany Barbosa, Ethno-cultural Council Calgary; Vic Lantion, Ethno-Cultural Council of Calgary; M

Author: Mrs. Ursulla Aho-Glele
Title: Strategies used in the institutionalization of patient engagement in risk management: The case of Quebec's healthcare organizations.
Type of Abstract: Poster

Objectives: The aim is to generate and share knowledge about factors, mechanisms and strategies put in place by organizational leaders that would allow patient engagement to be fully institutionalized in the health care system for the enhancement of patient safety. To do that, a questionnaire was created.

Approach: The project's research design is a descriptive research design. A questionnaire was sent to all integrated health care organizations in Quebec (n=22) and was first answered by people responsible for patient engagement and risk management inside the organization. Secondly, via telephone, a qualitative interview of one hour was conducted with the same people in order to index all implemented patient engagement in risk management strategies, and to get more information about why certain strategies were used.

Results: The questionnaire enabled us to collect strategies and mechanisms used by leaders and managers to implement structures of patient engagement in risk management. A list of those initiatives will be presented according to the level of management (strategic, tactical, and clinical). Factors facilitating and limiting the institutionalization of patient engagement in risk management for patient safety will be shared as well as indicators used to measure patient outcome and patient experience will also be identified.

Conclusion: Managers and health institutions will be able to understand the mechanisms and strategies that best work at the different levels, depending on contest, in risk management in order for patient engagement to be fully institutionalized.

All Authors: Marie-Pascale Pomey, University of Montreal; Ursulla Aho-Glele, Department of Health Administration, Université de Montréal

ID: 279
Author: Dr. Joan Almost
Title: A Study of Leading Indicators for Occupational Health and Safety Management Systems in Healthcare
Type of Abstract: Poster

Objectives: To conduct a longitudinal study implementing six elements identified as leading indicators and evaluate the effectiveness of tailored interventions on improving selected health and safety workplace indicators within two acute care hospitals. The six leading indicators include senior management commitment, continuous improvement, communication, competence, employee involvement and occupational health management.

Approach: A quasi-experimental longitudinal research design was used. Phase I focused on assessing current Occupational Health and Safety Management Systems (OHSMSs) at participating sites using leading indicators, determining facilitators and barriers to changing current systems, and identifying possible leading indicators to be added or changed in existing OHSMSs. Phase I concluded with the development of interventions designed to optimize current OHSMSs in place based on identified gaps. Phase II pilot tested and evaluated the tailored intervention. Data was collected pre- and post-intervention through interviews, surveys, and administrative data. The study will conclude with a symposium with healthcare administration, policymakers, and practitioners.

Results: The assessment at each site identified several gaps related to using leading indicators in OHSMSs. Tailored interventions were developed in collaboration with the sites with the focus on improving elements related to three leading indicators: employee engagement, senior management commitment, and communication. Regular 'Safety Rounds' were implemented on individual units to engage staff in discussions related to their health and safety, areas needing improvement, and possible solutions. Senior leadership from the hospital attended some rounds to support the discussions. Communication was bolstered through regular corporate communications (newsletters, bulletins, safety one-liners, etc.) focusing on leading, rather than lagging, indicators. Barriers to interventions included competing priorities and initiatives, time and workload, and changing the culture of occupational health and safety. Post-intervention data is currently being evaluated.

Conclusion: Healthcare ranks second highest for lost-time injury rates among Ontario sectors, costing $2.5B annually. Key to changing this trend is developing safe workplaces with effective utilization of leading indicators associated with proactive activities within OHSMSs. This study will inform organizations on the feasibility of implementing leading indicators into current systems.

All Authors: Joan Almost, School of Nursing, Queen's University; Elizabeth VanDenKerkhof, School of Nursing; Genevieve Pare, Queen's University; Vanessa Silva e Silva, Queen's University; Karanjit Lachhar, Queen's University; Peter Strahlendorf, School of Occupationa

ID: 472
Author: Ms. Natasha Altin
Title: Access to Assistive Technology for older adults in Canada
Type of Abstract: Poster

Objectives: Assistive technology (AT) (e.g. walkers, voice assistants) has been proposed as a strategy to support ageing population by maximizing functional ability and independence, managing chronic conditions, reducing needs for long-term care. However, without appropriate and equitable access to AT, its benefits are futile. Paper examines access to AT within Canada

Approach: Paper draws on the accessibility principle of the United Nation's Human Rights-Based Approach (HRBA) to Health to analyze current access to assistive technology, associated programs and funding structures throughout Canada. The accessibility principle of HRBA examines four interlinking dimensions of access to assistive technology: non-discrimination, physical, economic and information accessibility. HRBA identifies where Canada stands in its obligation to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in making assistive technology available to all and supports policy makers in shaping the future of Canadian health system that is reflective of international and Canadian values of equity.

Results: Access to AT is inconsistent throughout Canada resulting in unmet needs. Indirect inequities in access are evident through inconsistencies in federal provisions. Currently, federal provisions apply to only specific subset of Canadians and are unavailable to the rest of the population with similar needs. Economic accessibility (affordability) is a key barrier to AT access. With high cost of AT and inadequate levels of funding, AT users are forced to go without AT or choose less appropriate but more affordable options, potentially decreasing functionality and safety. Limited selection of AT and AT suppliers restrict AT users' choices, resulting in compromises that do not adequately meet users' needs. Current AT programs are highly disintegrated leading to the lack of information accessibility and difficulty navigating for AT users.

Conclusion: Access to AT is highly variable, complex, restricted and underfunded, does not support Canada's obligation to UNCRPD. To shape the future of the Canadian healthcare system that maximizes the promise of innovation and technology, there is an urgent need to facilitate development of policies that enhance equitable access to AT.

All Authors: Natasha Altin, University of Toronto

ID: 595
Author: Ms. Natasha Altin
Title: Shaping the future of Northern Canadian rehabilitation practice through global innovations.
Type of Abstract: Poster

Objectives: The WHO's GATE initiative provides guidance in stimulating equitable access to assistive technology (AT). Access to and fit of AT are issues in Northern Canada, due to unique AT needs produced by intersecting socio-political and physical features. This paper examines the applicability of the GATE within Northern Canadian rehabilitation practice.

Approach: Drawing on the Indigenous Intersectionality-Based Policy Analysis (IIBPA), principles of occupational justice, literature about colonization and Indigenous worldviews in Northern Canada, and reflections of Indigenous and non-Indigenous health-care providers with Northern practice experience, we analyze GATE's relevance for Northern Canada rehabilitation services. The IIBPA framework links elements of the Intersectionality-Based Policy Analysis and Indigenous worldviews to provide a new method for understanding the varied equity-relevant implications of policy and for promoting equity based improvement and social justice for Indigenous populations through detailed focus on: reflexivity, relationality, process shaping power differentiation within and among populations, and accounting for resistance and resilience.

Results: GATE's values and foundations are relevant for Northern Canada, but its proposed solutions risk preventing opportunities for Indigenous self-determination and rely largely on neoliberal ideology, which may not be effective in this setting. Rehabilitation services' interest in holistic and client-centred practice positions them to employ GATE values and foundations to collaborate with Northern communities for advocacy and to develop context-specific assistive technology solutions.

Conclusion: Critical reflexivity and community collaboration are required for rehabilitation service providers to apply global solutions, such as GATE, to specific contexts. Indigenous knowledge and an understanding of arctic communities must contribute to assistive technology solutions for Northern Canada.

All Authors: Natasha Altin, University of Toronto; Janna Maclachlan, University of Toronto; Angie Phenix, Hay River Health and Social Services Authority; Stephanie Nixon, University of Toronto

ID: 357
Author: Ms. Valentina Antonipillai
Title: Causal stories and agenda-setting: How organized interests redefined the problem of the refugee health policy retrenchments in Canada
Type of Abstract: Poster

Objectives: In 2012, the former Conservative government of Canada announced retrenchments to the Interim Federal Health Program (IFHP).These changes significantly limited healthcare access for refugees. This study explores how organized interests redefined the problem of the 2012 refugee health policy retrenchments to influence the Canadian government's decision agenda two years later.

Approach: Government documents, news articles, organizational reports and court proceedings were searched and analyzed to explore how interest groups defined the issue of the refugee health policy reforms.Through the application of Stone's policy problem definition framework, themes of causal stories were abstracted from opposing sides of the policy problem.

Results: Two main causal theories emerged from the analysis. Under each causal theory, stories of change and power were identified and examined for strategic use of symbols, such as metaphors and synecdoches, and numbers. The government defined and portrayed the problem in three ways: the IFHP reforms were implemented to contain the cost, to deter false refugee claims and to ensure fairness to Canadians. Organized interests re-defined and portrayed the problem in four ways: the IFHP reforms created suffering for refugees, it generated ethical dilemma for healthcare providers, it threatened public health and downloaded the costs to provinces, healthcare institutions and taxpayers.

Conclusion: Overall, there was a dramatic change in the portrayal and redefinition of the causal problem definition within the IFHP reforms that served as the main guide to policy. Through strategic use of causal stories, organized interests exposed the IFHP cuts as 'cruel and unusual' initiating steps towards its reversal.

All Authors: Valentina Antonipillai, McMaster University

ID: 359
Author: Ms. Valentina Antonipillai
Title: Problems, policies and politics that placed the Canadian refugee health policy reforms on the decision agenda in 2016: An agenda-setting analysis
Type of Abstract: Poster

Objectives: Refugee health policy reforms occurred in 2012 and 2014, limiting access to healthcare services for a vulnerable group. In 2016, the cutbacks to refugee health policy were reversed. This study examines factors involved in setting refugee health policy restoration on the federal governments' decision agenda in 2016.

Approach: A systematic search of news media articles was conducted using the LexisNexis database. Canadian media reports (n=192) were identified and 142 articles were included in this study. Government documents, organizational reports, scholarly papers and one court proceeding, were included in this analysis to understand the scope of the refugee health policy reforms. Kingdon's (1984) Multiple Streams Framework was used to analyse the data and abstract themes within the problems, policies and politics streams.

Results: The focusing event of Alan Kurdi's death and the Syrian refugee crisis captured the attention of the government officials, while organized action in the form of a legal challenge and a change in government contributed to the movement of the refugee health policy reforms onto the decision agenda. These two streams coupled with the policies stream, which brought about the viable policy solution of the restoration of the policy, opened a policy window because the federal election introduced new governmental priorities that were in line with the problem and its solution. The convergence of the three streams led to the eventual adoption of the new IFHP on April 1st, 2016 under which all refugees and claimants now receive comprehensive healthcare coverage.

Conclusion: The convergence of three streams (problems, policies and politics) opened the political policy window that was needed to place the well-

recognized problem of refugee health and its widely accepted policy solution, the restoration of the IFHP, on the federal government's decision agenda.

All Authors: Valentina Antonipillai, McMaster University

Objectives: Problematic communication in nurse-client relationships is a contributory factor to health care disparities, health inequity, systemic racism, and negative health outcomes. Gaps exist in literature regarding exploring undergraduate nursing students' perspectives of intercultural communication (ICC) which is crucial in determining the effectiveness and appropriateness of incorporating ICC in nursing curricula.

Approach: Using a qualitative descriptive design, the study answers the question, "What are undergraduate nursing students' perceptions of ICC?" The Integrated Model of Intercultural Communication Competence guides the study. A purposive sample of 10-15 participants will be recruited from a target population of 100 fourth-year undergraduate nursing students at a western Canadian university. Following ethical approval, and permission to access students, a letter of invitation will be emailed on behalf of the researcher by an administrative assistant. Semi-structured, one-on-one interviews will be conducted, digitally recorded, transcribed verbatim, coded with NVivo, and analyzed using content analysis. Researcher's reflexive journals will be used.

Results: In this poster presentation, preliminary findings of the study will be shared and discussed.

Conclusion: This study is significant in that the findings may be used to inform curricula development, clinical placements for students, policy, and research.

All Authors: Naomi Armah, University of Manitoba; Donna Martin, University of Manitoba; Nicole Harder, University of Manitoba; Frank Deer, University of Manitoba

ID: 217
Autheur: Mlle Gabrielle Arsenault
Titre: Relation entre participation à la sédation palliative continue (SPC) et l'aide médicale à mourir (AMM), approche des infirmières et fatigue de compassion : un protocole de recherche
Type d'abstrait: Affiche

Objectifs: Notre objectif est d'abord de décrire la distribution des infirmières sur un continuum s'étendant d'une approche procédurale dans les soins à une approche relationnelle, puis d'explorer les liens entre l'approche dans les soins, la participation à la SPC et/ou AMM et la fatigue de compassion des infirmières.

Approche: Il s'agit d'une enquête transversale électronique et postale auprès d'un échantillon aléatoire panquébécois d'infirmières prodiguant des soins de fin de vie. Un questionnaire a été conçu afin de mesurer la fatigue de compassion chez les infirmières, l'approche qu'elles adoptent dans les soins et leur participation à la SPC et/ou l'AMM. Ce questionnaire a été validé lors de deux groupes de discussions focalisées itératifs formés d'infirmières expérimentées dans le domaine des soins de fin de vie. Les participantes seront catégorisées selon leur participation à la SPC et/ou l'AMM, puis des analyses de variance, de covariance et de régression multiple seront effectuées.

Résultats: Les résultats permettront une compréhension approfondie de l'impact de l'AMM et de la SPC sur le bien-être au travail des infirmières, ainsi que l'impact de l'approche adoptée par l'infirmière et des autres facteurs associés. Il s'agira, selon nous, d'une première au Québec. Il s'agit également à notre connaissance de la première étude mettant en lien la participation à l'AMM (ou l'euthanasie à l'internationale) et la fatigue de compassion. Des études futures permettront d'évaluer si l'impact de l'AMM sur la fatigue de compassion des infirmières diminue à mesure qu'elles se familiarisent avec la pratique. Il sera aussi possible d'évaluer si la perspective adoptée par les infirmières change en se familiarisant avec cette pratique.

Conclusion: Cette étude permettra de mieux comprendre comment la pratique de l'AMM s'insère dans les pratiques infirmières. Cela fournira des pistes pour le développement d'interventions futures visant à améliorer le bien-être des infirmières travaillant dans les milieux de soins de fin de vie.

Autheurs: Gabrielle Arsenault, Université de Sherbrooke

ID: 425
Author: Dr. Yukiko Asada
Title: Town of Troutville, where people discuss fairness issues
Type of Abstract: Poster

Objectives: The question "What do people think?" drives many health policy public engagement efforts. Posing this question is particularly meaningful when issues relate to values, where the right answers cannot be found easily. We explored how the public engages in a reflective process to build shared consciousness about health equity.

Approach: We developed Fairness Dialogues, a forum to obtain well-informed and reflective values of the public on fairness issues related to primary health care in Nova Scotia. Fairness Dialogues uses a facilitated group discussion format, employing a scenario in a fictional town, Troutville. The scenario described inequalities in life expectancy and encouraged collective, in-depth reflection regarding fairness and unfairness of these inequalities. We conducted two 1.5-2-hour discussion groups with purposively sampled 6-8 persons each. The participants offered additional reflections on the content and process in individual follow-up telephone interviews. We conducted a thematic analysis of the discussion group and interview data.

Results: Fourteen participants varied widely in terms of age and socio-demographics. We found they engaged in a reflective process exploring fairness judgments regarding health inequalities. The use of the hypothetical scenario of Troutville - a typical, mid-sized town in Nova Scotia, where the participants were asked to imagine they and their families lived - was critical for the thoughtful collective exploration. The scenario, situated between total abstraction and personally attached real world, served as an empirical operationalization of the "veil of ignorance" (Rawls 1971) considered widely in the political philosophy and science literature. In terms of examination of fairness and unfairness of health inequalities, considerations of personal and societal responsibilities for health were recurring themes in both discussion groups.

Conclusion: By using a hypothetical scenario balancing real world considerations and safe exploration in a carefully facilitated group discussion, Fairness Dialogues enabled people to explore shared consciousness about health equity.

All Authors: Yukiko Asada, Dalhousie University ; Robin Urquhart, Dalhousie University; Marion Brown, Dalhousie University ; Emily Marshall, Dalhousie Family Medicine; Andrea Murphy, Dalhousie University ; Mary McNally, Dalhousie University ; Grace Warner, Dalhousie

ID: 493
Author: Dr. Rachelle Ashcroft
Title: An Incentive Model for Quality Care of Depression and Anxiety in Ontario Family Health Teams: Findings from a Grounded Theory Study
Type of Abstract: Poster

Objectives: The main objective of the study is to develop a theoretical model that explains how a range of financial and non-financial incentives influences the quality of care for common mental disorders (CMDs) in interprofessional primary care teams.

Approach: Led by an interdisciplinary team, this three-year qualitative study uses a constructivist grounded theory approach. Recruitment for this study targeted participants from Family Health Teams (FHTs) in Ontario, which resemble other team-based and "medical home" models of care implemented in other provinces. Using purposive sampling, we have completed 75 semi-structured interviews with diverse healthcare professionals within FHTs (e.g. physicians, executive directors, nurses, social workers, counsellors, psychiatrists), community mental health providers, and policy and decisions-makers. At time of presentation, we anticipate having 100 interviews completed.

Results: The poster will present findings related to our evolving theoretical model, which describes the types of incentives influencing teams and clinicians, the mechanisms through which these incentives appear to be working, and the areas of quality affected by them. Participants have identified a wide range of financial (e.g. funding models, remuneration schemes, bonuses) and non-financial (e.g. training opportunities, organizational culture and policies) incentives affecting mental health care, and a number of mechanisms have been revealed (e.g. autonomy, mastery, connectedness). The areas of quality explored in the study include technical care quality, access, equity, structural quality, person-centeredness, and efficiency.

Conclusion: The incentive model will help stakeholders understand the levers and pathways of change they can use to improve care quality for CMDs in primary care. This is especially timely for Ontario, where a regional strategy for primary care resources, including availability and role of mental health workers is underway.

All Authors: Rachelle Ashcroft, University of Toronto; Matthew Menear, Laval University; Simone Dahrouge, Bruyère Research Institute; José Silveira, St. Joseph's Health Centre; Monica Emode, University of Toronto; Jocelyn Booton, Factor-Inwentash Faculty of Social Wo

ID: 616
Author: Dr. Katie Aubrecht
Title: Mapping Person-Centred Dementia Care, Relational Care & Livability in Long-Term Care Research on Dementia
Type of Abstract: Poster

Objectives: Clarify the similarities and distinctions between person-centred dementia care (PCDC), relational care, and livability in residential long-term care (LTC) quality of care and quality of life research on dementia, by mapping concept histories, usages, tensions, overlaps and slippages.

Approach: This presentation shares and describes an evidence map of results from a realist review of current knowledge on person-centred dementia care (PCDC), relational care, and livability in residential long-term care (LTC) quality of care and quality of life research on dementia (2007-2017). Based on our findings, we advocate for greater attention to livability as an conceptual tool in LTC research on dementia care.

Results: Results suggest conceptual parallels, as illustrated in a shared focus on the importance of opportunities for meaningful participation, engagement and resident decision-making. The primary focus of each term – person, relationship, environment – corresponded with levels of analysis. PCDC research promoted a values-based understanding of how well LTC milieus support the social identities of residents. Even as PCDC supported enriched micro-level understandings of the individuality of residents, there was limited attention to macro-level environmental influences that shape care relationships, and structure the conditions of care within LTC. Research on relational care addressed the limits of PCDC, and a means of bridging macro- and micro-levels of analysis. Livability, while less present in the literature than PCDC and relational care, directs attention to the influence of environment.

Conclusion: The concept of livability makes it possible to analyze the habitability of residential LTC communities, and with that a broad range of environmental factors that are external to the experiences of residents with dementia and their paid and unpaid family/friend caregivers, but which shape them nonetheless.

All Authors: Katie Aubrecht, St. Francis Xavier University

ID: 99
Author: Ms. Li-Anne Audet
Title: Association between nurse education and the risk of mortality and failure to rescue in acute care hospitals : a longitudinal study
Type of Abstract: Poster

Objectives: In 2011, the Institute of Medicine suggested that by 2020, 80% of registerd nurses in acute care hospitals should be educated at the baccalaureate degree. The aims of this study was to determine whether this threshold is associated with a lower risk of mortality and failure to rescue.

Approach: A dynamic cohort of medical-surgical patients was followed from January 2010 to December 2016 in a large university health center in Quebec. Nurse education was measured, using payroll data, as the cumulative number of shifts where at least 80% of RNs held a baccalaureate degree. Mortality and failure to rescue were measured from discharge abstract data. The association between nurse education, mortality, and failure to rescue, were assessed using two Cox regression models. These models ajusted for fixed-in-time patient characteristics (e.g., age, comorbidities) as well as time-varying nursing unit (e.g., unit type and occupancy) and nurse staffing characteristics (e.g., nurse-to-patient)

Results: A total of 124,832 patients was followed, of which 4,975 died and 2,339 experienced failure to rescue. Descriptive statistics indicated that patient who died or experienced failure to rescue where older, had more comorbidities and higher severity of illness of admission than those who survived. After adjusting for patient, nursing unit, and nurse staffing characteristics, we found that each additionnal work-shift where 80% or more of the Registered Nurses held a baccalaureate degree was associated with a 3% decrease in the risk of mortality (HR: 0.98; 95%CI: 0.96-0.99), and a 3.4% decrease in the risk of failure to rescue (HR:0.96; 95% CI:0.95-0.98).

Conclusion: Increasing the number of work-shifts with 80% or more baccalaureate-prepared registered nurses is associated with lower risks of mortality and failure to rescue; lending support to the Institute of Medicine's recommendation. Decision makers need to design and implement policies that will attract and retain baccalaureate-prepared nurses in acute care hospitals.

All Authors: Li-Anne Audet, McGill University; Patricia Bourgault, University of Sherbrooke; Michal Abrahamowicz, Mcgill University ; Christian Rochefort, University of Sherbrooke

ID: 416
Author: Ms. Harsukh Benipal
Title: Comparative Effectiveness and Safety of Oral Anticoagulants for Atrial Fibrillation: A Population-based Canadian Cohort
Type of Abstract: Poster

Objectives: Warfarin and direct-acting oral anticoagulants (DOACs) are widely prescribed for atrial fibrillation. Warfarin requires ongoing monitoring of its anticoagulant effect, while DOACs are more costly. Our objective was to compare the effectiveness and safety of DOACs versus warfarin in clinical practice where high-quality anticoagulation management is available.

Approach: A population-based retrospective cohort study of all British Columbia residents aged 18 years and older, who were diagnosed with atrial fibrillation and initiated OAC therapy between October 2010 – June 2013. De-identified patient data was linked, including prescribed medications, vital status, demographics, diagnoses, hospitalizations and emergency department visits, and community laboratory results. The co-primary outcomes were ischemic stroke or systemic embolism, and major bleeding. An intention-to-treat approach was taken, with propensity score adjustment using a time-to-event model.

Results: 29,662 eligible patients were identified with mean age 72, 43.8% female, 47.0% with a Charlson comorbidity score > 2. Mean follow up was for 17.7 months (SD 11.7). 60.1% of patients initiated warfarin therapy, 23.2% dabigatran, 16.3% rivaroxaban, 0.004% apixaban, respectively. After restriction of the cohort to remove patients where there would be no therapeutic equipoise, 20,113 patients were entered into the comparison study. There was no significant difference between the warfarin versus DOAC users for the co-primary outcome rates of ischemic stroke or systemic embolism (adjusted rate ratio (ARR) 1.15 [95% CI 0.91-1.46]), and major bleeding (ARR 0.94 [95% CI 0.82-1.08]). No significant differences in primary outcomes were observed amongst warfarin, dabigatran or rivaroxaban users.

Conclusion: In this large cohort of older adults with atrial fibrillation initiating OAC therapy, no significant differences in rates for ischemic stroke or systemic embolism, and major bleeding were found between warfarin and DOACs. Analyses of subgroups where one drug may be superior, are ongoing.

All Authors: Harsukh Benipal, McMaster University; Anne Holbrook, McMaster University; Colin Dormuth, University of British Columbia; Richard Morrow, University of British Columbia; Agnes Lee, University of British Columbia; Gary Foster, McMaster University; Eleanor P

ID: 451
Author: Ms. Madeleine Benjamin
Title: In-hospital mental health patients in Canadian hospitals: 2006-07 to 2015-16
Type of Abstract: Poster

Objectives: The objective is to profile five categories (dementia, schizophrenia, addiction to alcohol, addiction to psychoactive substances, and mood disorders) of in-hospital mental health patients in terms of volume, demographics, utilization of bed-days, length of stay (LOS), comorbidities, mortality, and destination after discharge.

Approach: This study used the Discharge Abstract Database (DAD) for the period 2006-07 to 2015-16, which is large administrative database containing information about more than 2.6 million discharged patients for each year. Five categories of in-hospital mental health patients were identified from DAD for analysis, using ICD-10-CM codes. Patients in each of these categories were further identified as either acute care patients or Alternate Level of Care (ALC) patients (who stay in hospital, even when acute care is not needed). Acute care patients and ALC patients were profiled separately and compared by five categories of in-hospital mental health patients.

Results: The percentage of in-hospital mental health patients has been increasing since 2009. 1n 2015, about 58% of in-patients with dementia were ALC patients. Average LOS for ALC patients with dementia grew annually, on average, by 3.5% from 2006-07 to 2015-16. LOS in acute care for schizophrenia patients is much higher compared to other diagnostic categories within mental health. However, it declined from 163 days in 2006-07 to 106 days in 2015-16. Mental health patients in all diagnostic categories were prone to signing out of hospital without medical advice. Both "less than 7 days" and "8 to 28 days" readmission rates declined for all the diagnostic categories. Except for patients with schizophrenia or addiction to psychoactive substances, mental health patients lived disproportionately in rural areas.

Conclusion: In-hospital mental health patients are diverse regarding demographics, bed usage, post-discharge destinations, comorbidities, and mortality; and have grown annually (approximately 4%), on average. It is not clear if this is due to a higher incidence or due to a decline in the stigma, commonly associated with mental health disorders.

All Authors: Madeleine Benjamin, Health Canada; Kisalaya Basu, Health Canada

ID: 116
Author: Ms. Dominika Bhatia
Title: Influence of chronic comorbidities on colorectal cancer screening adherence in Ontario, Canada: A population-based cohort study
Type of Abstract: Poster

Objectives: National guidelines recommend periodic colorectal cancer (CRC) screening for adults aged 50-74 years. Chronic diseases may distract from regular screening and increase CRC burden. We sought to determine whether having certain chronic conditions is associated with a lower rate of CRC screening adherence.

Approach: Using linked healthcare databases from Ontario, Canada, we assembled a population-based cohort of adults aged 50-74 years, who were eligible and overdue for routine CRC screening (fecal occult blood testing > 2 years, sigmoidoscopy > 5 years, or colonoscopy > 10 years) at any point between April 1, 2004 and March 31, 2016. We implemented Andersen-Gill extended Cox models for recurrent events using an age time scale to examine the impact of chronic conditions on the relative rate (RR, 95% confidence interval, CI) of becoming adherent with periodic CRC tests, adjusted for the relevant time-varying covariates.

Results: We included 4,642,422 individuals, who contributed 19,818,050 person-years spent overdue for CRC tests. At baseline, 31% had hypertension, 12% had diabetes, 9% had chronic obstructive pulmonary disease (COPD), 7% had mental illness, 5% had cardiovascular disease (CVD), 1.6% had congestive heart failure (CHF), and 0.1% had end-stage renal disease (ESRD). After adjustment for sociodemographic and health system factors, the highest rates of nonadherence were observed for ESRD on dialysis (RR 0.66, CI 0.63-0.68), CHF (RR 0.75, CI 0.75-0.76), COPD (RR 0.84, CI 0.83-0.84), CVD (RR 0.85, CI 0.84-0.85), diabetes (RR 0.86, CI 0.86-0.87), and mental illness (RR 0.88, CI 0.87-0.88). Hypertension (RR 0.98, CI 0.97-0.98) and ESRD with kidney transplant (RR 1.00, CI 0.84-1.19) were associated with modest to no risk.

Conclusion: The presence of a major chronic condition is associated with lower adherence to CRC screening. Future studies should explore reasons for lower CRC screening adherence in individuals with chronic conditions and the appropriateness of secondary cancer prevention and early diagnosis in this population.

All Authors: Dominika Bhatia, University of Toronto; Jill Tinmouth, Cancer Care Ontario; Rinku Sutradhar, Institute for Clinical Evaluative Sciences; Simron Singh, Cancer Care Ontario; Lorraine Lipscombe, Women's College Hospital

ID: 511
Autheur: Ms. Jolianne Bolduc
Titre: Dotation en personnel infirmier : existe-t-il un lien entre la composition des équipes et le nombre de rapports d'incidents et d'accidents dans les unités de soins critiques
Type d'abstrait: Affiche

Objectifs: Dresser un portrait des différentes composition des équipes de soins infirmiers dans les unités de soins critiques d'un Centre Intégré Universitaire de Santé et Services Sociaux (CIUSSS).

Évaluer le lien entre les différentes compositions des équipes de soins infirmiers et la qualité et sécurité des soins des unités de soins critiques.

Approche: Le cadre de référence de Clarke et Donaldson (2008) a été choisi afin d'établir les liens entre les variables à l'étude. Un devis corrélationnel explicatif transversal a été utilisé pour examiner la relation entre la composition des équipes de soins infirmiers (nombre d'infirmières cliniciennes et techniciennes) et la qualité et sécurité des soins (nombre de rapports d'incidents et d'accidents) pour chacun des quarts de travail des unités de soins critiques, et ce, pendant 57 jours (n=1197). Des tests de corrélations et des régressions suivant la loi de poisson ont été effectuées afin d'évaluer les liens entre les variables à l'étude.

Résultats: Cette étude a permis de faire une description détaillée des équipes de soins infirmiers pour l'ensemble des unités de soins critiques d'un Centre Intégré Universitaire de Santé et Services Sociaux. Un aperçu des incidents et accidents sensibles aux soins infirmiers les plus souvent enregistrés dans ces unités a aussi été évalué lors de cette étude. Il a été possible d'évaluer le lien entre le niveau de formation des infirmières du Québec et la qualité et sécurité des soins. En effet, les résultats de cette étude mettent à l'évidence les impacts du choix de la composition des équipes sur la qualité et sécurité des soins. Une équipe composée majoritairement d'infirmières cliniciennes semble être associée à une qualité et sécurité des soins plus élevée.

Conclusion: Pour conclure, aucune étude au Québec n'avait évalué les effets de la composition des équipes de soins infirmiers dans les unités de soins critiques. Les résultats de cette étude permettent donc de montrer l'importance de continuer les études à ce sujet afin de renforcer les liens entre ces variables.

Autheurs: Jolianne Bolduc, Université de Montréal; Roxane Borgès Da Silva, Université de Montréal ; Johanne Goudreau, Université de Montréal

Title: Streamlining Transition from Rehabilitation Hospital Back to the Community for Stroke Patients
Type of Abstract: Poster

Objectives: The main objective of this research is to understand the complex care needs of stroke patients after discharge from a rehabilitation hospital to the community, finding out the gaps that healthcare system has when addressing this problem, and propose a new system/intervention that creates smoother transition for this population.

Approach: In order to achieve the objectives, a series of design research methods involving various stakeholders were used in this study, always using the principle of user centred research and design. Literature review was made, to understand the stroke patients conditions, needs and barriers. After that a primary research was done by observations in a stroke rehabilitation unit, interviews with healthcare providers, patients and their caregivers, followed by feedback sessions. The main research method used was a co-design session to co-create the final proposal involving caregivers, healthcare providers, volunteer managers, and researchers with an extensive understanding of the stroke transition problems.

Results: Main themes emerged from open and thematic coding approach of qualitative data.

The concept of triad (patient, caregiver, care provider) dominated all themes. This research initially came up with five ideas, which were narrowed down into one main concept. The Main Points of our Intervention at rehab hospital are:

- facilitating caregiver assessment,
- educating and training caregiver alongside nurse educator and care team,
- performing home assessment.

At primary care:

- Scheduling family doctor appointment when discharge date known,
- calling to follow-up with stroke patient after discharge to ensure that everything is going well,
- arranging transportation if Stroke Patient has no means of getting to and from appointments.

In the Community:

- Participating in friendly visits,
- continuing educational services at sub hubs,
- facilitate peer and volunteer matching.

Conclusion: There are significant stressors on the healthcare system, care providers, and patient-caregiver dyad in the process of transition. The service and system interventions that we proposed address a few aspects of this dilemma, they alleviate strains on patients and caregivers by setting up family doctor appointments and providing follow-up support.

All Authors: Rezvan Boostani, OCAD University; Mahsa Karimi, OCAD University; Sonia Tagari, OCAD University; Filipe De Abreu , OCAD University

ID: 87
Author: Mrs. Nevzeta Bosnic
Title: The cost of new oral antidiabetic drugs in Canada and internationally
Type of Abstract: Poster

Objectives: Two emerging classes of oral agents for type 2 diabetes mellitus have reshaped the antidiabetic drug market over the last decade: dipeptidyl peptidase-4 inhibitors (DPP-4) and sodium-glucose cotransporter-2 inhibitors (SGLT-2). This presentation will provide insight into the market uptake and pricing of these drugs in Canada compared to other countries.

Approach: The analysis considers all drugs from these classes approved by Health Canada. International comparisons focus on the seven countries the PMPRB considers when reviewing the prices of patented drugs (PMPRB7), along with select countries in the Organisation for Economic Co-operation and Development (OECD). The report focuses on 2016, and also provides a retrospective look at trends since 2011.

Results: The study shows strong growth for the DPP-4 and SGLT-2 markets, with a compound annual growth rate of 40% over the study period. Januvia, Janumet, and Invokana dominate the sales of DPP-4 and SGLT-2 products, capturing almost 70% of the two classes combined. While these two classes of drugs account for a higher share of pharmaceutical sales in Canada than in most comparable international markets, the prices for most of these drugs are markedly lower in foreign markets. Aligning Canadian prices with international levels would result in lower drug costs for Canadians, which will be discussed in this presentation.

Conclusion: Relatively high prices of new agents for type 2 diabetes had a notable impact on the Canadian antidiabetic market expenditure trends. This report will inform policy discussions on the price and reimbursement of these drugs at both the public and private payer levels.

All Authors: Nevzeta Bosnic, PMPRB; Brian O'Shea, Patented Medicine Prices Review Board / Government of Canada; Yvonne Zhang, Patented Medicine Prices Review Board / Government of Canada; Greg McComb, National Prescription Drug Utilization Information System (NPDUIS)

ID: 88
Author: Mrs. Nevzeta Bosnic
Title: The cost of drugs for age-related macular degeneration in Canada and internationally
Type of Abstract: Poster

Objectives: Anti-vascular endothelial growth factor (anti-VEGF) drugs, such as Lucentis (ranibizumab) and Eylea (aflibercept) represent a significant improvement in treatment for retinal conditions including wet age-related macular degeneration (AMD). These drugs have had an important uptake in recent years, placing significant pressures on public drug plan costs.

Approach: The sales of these drugs grew at a compound annual rate of 20% during the study period, doubling their market share from 1.2% in 2011 to 2.5% in 2016. While the rate of use of anti-VEGF drugs in Canada is comparable to most of the international markets studied, the prices are markedly lower in foreign markets. Aligning Canadian prices with international levels would result in lower drug costs for Canadians, which will be discussed in this presentation.

Results: International comparisons focus on the seven countries the PMPRB considers when reviewing the prices of patented drugs (PMPRB7), along with select countries in the Organisation for Economic Co-operation and Development (OECD). The report focuses on data from 2016, and also provides a retrospective look at trends since 2011.

Conclusion: This presentation will provide insight into the market uptake and pricing of anti-VEGF drugs in Canada compared to other countries and will inform the policy discussions on the price and reimbursement of these drugs.

All Authors: Nevzeta Bosnic, PMPRB; Brian O'Shea, Patented Medicine Prices Review Board / Government of Canada; Yvonne Zhang, Patented Medicine Prices Review Board / Government of Canada; Greg McComb, National Prescription Drug Utilization Information System (NPDUIS)

ID: 89
Author: Mrs. Nevzeta Bosnic
Title: Cost Drivers in Public Drug Plans in Canada, 2016/17
Type of Abstract: Poster

Objectives: After a sharp 9.9% increase in 2015/16, the growth in public drug plan expenditures dropped to 2.6% in 2016/17. The 4th edition of the CompassRx provides insight into the factors that contributed to this decline.

Approach: The analysis uses a cost-driver model to isolate the key factors contributing to changes in drug and dispensing costs based on claims-level public drug plan data from the Canadian Institute for Health Information's NPDUIS Database.

Results: The decline in public drug plan expenditures in 2016/17 was mainly the result of lower costs related to hepatitis C drugs compared to the previous year when part of the backlog of patients was treated. At the same time, the sustained pressure of higher cost drugs pushed cost levels up by 4.7%, while the counteracting effect of generic savings was limited and the low biosimilar uptake provided only modest savings. The growth in dispensing costs continued a downward trend, falling from 3.6% in 2015/16 to 1.6% in 2016/17, although methadone use added pressure in some public drug plans.

Conclusion: A greater understanding of the forces driving expenditures in Canadian public drug plans informs policy and stakeholder discussions and aids in anticipating, managing and responding to evolving cost pressures.

All Authors: Nevzeta Bosnic, PMPRB; Elena Lungu, Patented Medicine Prices Review Board; Yvonne Zhang, Patented Medicine Prices Review Board / Government of Canada; Karine Landry, PMPRB; Brian O'Shea, Patented Medicine Prices Review Board / Government of Canada

ID: 90
Author: Mrs. Nevzeta Bosnic
Title: Cost Drivers in Private Drug Plans in Canada, 2016
Type of Abstract: Poster

Objectives: The growth in drug costs and increased number of high cost drugs in Canadian private drug plans in recent years has raised concerns over long-term sustainability. This PMPRB study identifies the major drivers of change in drug costs and their effect on cost growth in private plans.

Approach: The analysis uses the IMS Brogan® Private Drug Plan databases for the period from 2006 to 2016. A number of cost drivers are analyzed, including demographic, volume, price and drug-mix effects. Additional focus is given to high-cost drugs and patients to provide insight into their potential impact. The analysis also delves into provincial-level analyses and comparisons with public drug plans.

Results: Private drug plan costs increased by 4.4% in 2016, at a lower rate than in 2014 and 2015 when drug costs grew by 5.8% and 6.2%, respectively. This reduction mainly was mainly the result of lower costs related to hepatitis C drugs compared to the previous year when part of the backlog of privately insured patients was treated. The increase in drug expenditure in 2016 was largely driven by newer and more expensive drugs that had an important "push" (positive) effect. The generic price and substitution effects that pulled costs downward in previous years were less pronounced in 2016 and were no longer able to offset the cost pressures from more expensive drugs.

Conclusion: A greater understanding of the forces driving expenditures in private drug plans in Canada will inform policy discussions and aid private plans in anticipating and responding to evolving cost pressures.

All Authors: Nevzeta Bosnic, PMPRB; Yvonne Zhang, Patented Medicine Prices Review Board / Government of Canada; Elena Lungu, Patented Medicine Prices Review Board; Karine Landry, PMPRB

ID: 549
Author: Dr. Ivy Bourgeault
Title: Mental Health Issues, Leaves of Absence, and Return to Work of Canadian Physicians: A Case Study from the Healthy Professional/Knowledge Worker Research Initiative
Type of Abstract: Poster

Objectives: Physician mental health is increasingly recognized as an important issue. The objective of this study was to develop a better understanding of physicians' experiences of personal, familial or work-related mental health issues, the factors influencing leave of absence decisions, the return-to-work process, and interventions fostering mental well-being at work.

Approach: This case study is a part of an interdisciplinary, collaborative, and comparative research initiative aiming to better understand the gendered experiences of mental health, leaves of absence and return-to-work amongst regulated professional/knowledge workers. A scoping review of the peer-reviewed and grey literature was performed and collected articles underwent full-text review for relevant themes such as physician mental health, gender, return-to-work and interventions. A pilot survey was developed and deployed online, collecting data from a convenience sample of physicians. Follow-up semi-structured interviews with key stakeholders and working physicians were conducted. An explicit gender perspective was taken.

Results: The findings of the scoping review suggest that there is increasing awareness of mental health concerns in the physician population. Physicians have higher than average rates of burnout, depression, and suicidal ideation with experiences distinct to gender. Return to work interventions are often centered at the individual physician level, and while the importance of organizational initiatives is recognized these programs are in short supply. While analyses of interviews are still in progress, emerging themes include: vulnerability of all physicians to mental health issues with specific additional risk factors related to gender and career stage, widespread presenteeism, barriers to seeking help (stigma, access to care, financial concerns, fear of loss of licensure), and the need for a more standardized approach to physician mental health.

Conclusion: While the importance of physician mental health is recognized in the literature and by physicians and stakeholders, there is a dearth of information on leaves of absence due to mental health issues and return-to-work programs and processes. Our work informs gender-responsive policy and interventions to foster physician mental health.

All Authors: Ivy Bourgeault, University of Ottawa; Sarah Simkin, ; Nabeelah Ahmed, Telfer School of Management; Chantal Demers,

ID: 557
Author: Dr. Ivy Bourgeault
Title: Mental Health, Leaves of Absence, and Return to Work Experiences of Nurses: A Mixed Methods Study
Type of Abstract: Poster

Objectives: The purpose of this paper is examine mental health issues, leaves of absence and return to work experiences among nurses in Canada. Although earlier research indicated that nurses experience higher rates of mental health concerns, this has been insufficiently explored in the Canadian as well international context.

Approach: This case study involved a mixed methods approach including three elements. First, a scoping review of 46 peer-reviewed and 17 grey literature sources was performed and collected articles underwent full-text review utilizing a literature extraction tool. A pilot survey was developed and deployed online, collecting data from a convenience sample of 64 nurses across Canada. Follow-up semi-structured interviews with 7 nurses and representatives from nursing stakeholder groups were conducted. The data were analyzed descriptively (quantitative) and thematically (qualitative). An explicit gender lens was adopted throughout.

Results: The literature revealed that work-related factors such as lack of staffing, work overload, working in continuously changing and unpredictable shifts, workplace violence and bullying are associated with a higher level of stress and burnout among nurses. This was corroborated by the findings from the pilot survey: the majority of nurses identified stress followed by burnout and then anxiety as being the most challenging MH issues facing their profession, of which the majority have largely attributed to work circumstances. Nearly half of respondents (45%) reported taking a leave of absence for mental health related challenges of which 38% was attributed to stress, 21% equally to burnout and depression. Those who have taken a leave noted the absence of return to work policies or programs.

Conclusion: The study results indicate the need for: 1) improving working conditions for nurses so that risk factors for MH issues among nurses (such as work overload) can be eliminated or reduced; 2) more accessible and effective MH workplace policies; and 3) development of workplace policies in more health organizations.

All Authors: Ivy Bourgeault, University of Ottawa; Jelena Atanackovic, Telfer School of Management; Chantal Demers, ; Christine Covell, ; Sheri Price, Dalhousie University; Melanie Lavoie-Tremblay, McGill University

ID: 243
Author: Ms. Hana Brath
Title: Preventing, Detecting and Reversing Prescribing Cascades: A Scoping Review
Type of Abstract: Poster

Objectives: Prescribing cascades are well-recognized across different disciplines as a barrier to optimal prescribing. However, little is known about the strategies available to reduce prescribing cascades. An objective is to systematically review the literature for strategies used to prevent, detect, and reverse prescribing cascades in order to improve drug safety.

Approach: The databases Medline, EMBASE, psychINFO, CINAHL, Cochrane Library, Sociological Abstracts and Journal Abstracts were searched from inception until July 2017. Additionally, online grey literature searches and hand searches of reference lists from included studies were performed. English-language resources that describe a potential strategy for identifying

and reducing a prescribing cascade were included. Abstracts and full-text resources were screened for inclusion by two independent reviewers. Data was extracted by one reviewer, and confirmed by the other. Resources were placed into one of three categories across the prescribing continuum: preventing, detecting or reversing prescribing cascades.

Results: Out of 369 unique resources identified, 102 abstracts were screened for inclusion. After excluding resources without published full texts, 94 resources underwent full text review. Of these, 36 were excluded because they contained no mention of strategies to prevent, detect or reverse prescribing cascades. 58 resources were included in the final review. Of these, 33 resources contained strategies to prevent prescribing cascades, 47 had strategies for detecting prescribing cascades, and 26 contained reversal strategies.

Conclusion: Prescribing cascades are a valuable tool to improve drug safety. A range of strategies to prevent, detect and reverse prescribing cascades exist, and most of these studies explored detection strategies. These strategies need to be implemented more broadly in practice.

All Authors: Hana Brath, Women's College Hospital, Women's College Research Institute

ID: 488
Author: Dr. Jaime Brown
Title: Practice-based research on innovation: Enabling transformation in Ontario's child and youth mental health system
Type of Abstract: Poster

Objectives: The Innovation Initiatives grant was launched in 2017 to enable implementation and evaluation of evidence-informed, innovative approaches to address system transformation priorities in Ontario's child and youth mental health sector. We highlight results and lessons learned through evaluation of this grant's inaugural year and discuss future directions.

Approach: Our developmental approach to evaluation of the Innovation Initiatives grant will consider key outcomes reported by individual projects, but will primarily focus on a qualitative, thematic analysis of strategies, results, and lessons learned across the six projects funded in 2017-2018. Our analysis will draw from interim site visits, semi-structured interviews with project leads, and results and reflections shared by teams through project final reports. We will also draw from a literature and practice scan, which sought to identify factors associated with granting models and practices that enable innovation in community-based research.

Results: The objectives of this evaluation are two-fold. First, we hope to learn about promising, innovative approaches to advancing system priorities so that we can leverage emerging knowledge and support the spread of innovation across Ontario. We will highlight approaches to innovation tested, areas of focus, short-term outcomes, and discuss the potential for spread and system impact. Second, we hope to better understand enablers and barriers to innovation in Ontario's child and youth mental health sector. We will explore the enabling roles that grant-making bodies can play to support generation and mobilization of evidence on innovative practices that drive system change. We will highlight lessons learned and feedback from project teams about how grant structure and supports can promote community- and practice-based research on innovation.

Conclusion: System reform requires making space for innovation and disruption to "business as usual". This applies to service delivery, but also to the research and funding practices that support the system. We will share evidence and insights on supporting innovation in child and youth mental health services in Ontario.

All Authors: Jaime Brown, Centre of Excellence for Child and Youth Mental Health, CHEO; Purnima Sundar, Centre of Excellence for Child and Youth Mental Health, CHEO; Shruti Patel, Centre of Excellence for Child and Youth Mental Health, CHEO

ID: 287
Author: Dr. Marni Brownell
Title: Do Home Visiting Programs Improve the Well-Being of First Nations Children and Parents?
Type of Abstract: Poster

Objectives: Families First Home Visiting Program (FFHV) provides services to families with preschool children who are living in conditions of risk. But whether the program benefits First Nations families remains unknown. We aimed to determine the effectiveness of FFHV at improving outcomes for First Nations children and parents.

Approach: This research was conducted in partnership with the First Nations Health and Social Secretariat of Manitoba to guide the research and ensure appropriate interpretation. Home visiting program data from 4,010 First Nations children and parents were linked to administrative data housed at the Manitoba Centre for Health Policy through a scrambled health identifier. Less than half of the families who were eligible received the program (n=1,681); n=2,329 others did not. We compared outcomes of program and non-program families. Inverse probability of treatment weights adjusted for confounders related to both entry into FFHV and the outcomes under study.

Results: FFHV was associated with higher rates of child immunization at age one (71% versus 66%) and age two (47% versus 41%) and parental involvement in support groups (21% versus 17%), as well as lower rates of being in care of child welfare at age one (10% versus 14%) and age two (15% versus 19%); child victimization (1.7% versus 3.0%) and maltreatment-related hospitalizations (0.4% versus 1.0%). However, there were no differences in developmental vulnerability or being "not ready for school" between the two groups of children (as measured by the Early Development Instrument at age five), nor between the two groups of mothers in physician visits for mental health reasons.

Conclusion: Home visiting services can play a role in supporting healthy development of First Nations children by providing support to their parents and connecting children to health services. These results will inform program enhancements to improve child development at school entry and maternal mental health in First Nations communities.

All Authors: Marni Brownell, Manitoba Centre for Health Policy; Mariette Chartier, ; Rhonda Campbell, First Nations Health and Social Secretariat of Manitoba; Nathan Nickel, University of Manitoba; Jennifer Enns, ; Wanda Phillips-Beck, First Nations Health and Social

ID: 563
Author: Mr. Richard Buote
Title: Primary care lifestyle interventions for Type 2 diabetes prevention: A systematic review and meta-analysis of randomized controlled trials
Type of Abstract: Poster

Objectives: Lifestyle interventions have consistently been shown to reduce risk of type 2 diabetes mellitus (T2DM). There remains a challenge implementing these interventions in a real-world setting. This review explores whether lifestyle interventions delivered in a primary care setting, compared to usual care, reduces risk of developing T2DM among high-risk patients.

Approach: PubMed, MEDLINE, Embase, and CINAHL were searched for relevant articles. Key terms included "type 2 diabetes", "primary care", "lifestyle", "intervention", and "prevention". Authors hand searched reference lists of relevant articles and previous reviews. To be included in this review, trials needed to have used a randomized controlled design testing a lifestyle intervention focused primarily on diet and physical activity among adults at risk of T2DM. Trials also must have been delivered in a primary care setting by primary healthcare professionals using a usual care control. The primary outcome was development of diabetes over the course of the trial.

Results: In total, 1376 unique records were found. Following screening, seven unique studies were included in the meta-analysis. Analysis showed that those in the intervention group were 45% less likely to develop T2DM, as compared to a usual care control (OR = 0.55, 95% CI: 0.37; 0.81, p = 0.002). A sensitivity analysis was performed, removing two studies at potential risk of bias. This had little impact on the results (OR = 0.50, 95% CI: 0.31; 0.81, p = 0.005).

Conclusion: Lifestyle interventions delivered in primary care settings are superior to usual care for preventing T2DM among high-risk patients. With the implementation of such interventions in a primary care setting, incidence of T2DM could be significantly reduced. Future studies should explore longer follow-up to determine the long-term impact of lifestyle interventions.

All Authors: Richard Buote, Memorial University of Newfoundland; Cameron Maclellan, Memorial University of Newfoundland

ID: 255
Author: Dr. Frederick Burge
Title: Primary care performance measurement in Canada: Progress and next steps of the TRANSFORMATION Study
Type of Abstract: Poster

Objectives: To highlight lessons learned from the TRANSFORMATION program of research, which advanced the science of regional-level primary care (PC) performance measurement and reporting. Insights gained from work in three geographic regions of Canada (Fraser East - British Columbia, Eastern Ontario Health Unit - Ontario, Central Zone - Nova Scotia).

Approach: Mixed methods concurrent study design.

Qualitative: 1) Comparative policy analysis using case study methodology [document review (n=206 documents), interviews (n=20 participants), focus groups (n=44 participants)] to provide contextual data on PC innovations implemented in each study region; 2) Deliberative dialogues (n=6 full-day sessions) to obtain patients' perceptions of and priorities for public PC performance reporting

Quantitative: Linked multi-source data collection from health administrative data and practice based surveys of patients (n=1926), providers (n=117), organizational leads (n=87), and practice team members (n=449) in 87 family practices.

Regional portraits to identify variation in PC performance within the Patient-Centred Medical Home framework.

Results: Key lessons learned include: 1) Linked practice-based multi-source performance measurement is feasible; 2) Electronic and automated systems for data collection can facilitate scalability; 3) Regional performance portraits identified variation; 4) Patients-citizens value the public reporting of PC performance information; 5) Regional progress towards achieving the elements of the patient centred medical home was measured and reported.

Conclusion: We have advanced the methodology for comprehensive primary care performance measurement and reporting. Next steps include integrating mechanisms for scalability (automated) and comprehensiveness (including EMR data) into our performance measurement and reporting framework.

All Authors: Frederick Burge, Dalhousie Family Medicine; Sabrina Wong, UBC; Sharon Johnston, University of Ottawa, Bruyere Research Institute; William Hogg, Department of Family Medicine, University of Ottawa; Ruth Martin-Misener, Dalhousie University; Jeannie Hagger

ID: 68
Author: Ms. Diane Burns
Title: Health Equity Data and Tools: Regional Cancer Program Needs Assessment
Type of Abstract: Poster

Objectives: Through the Ontario Cancer Plan, Cancer Care Ontario committed to providing information and tools to support the Regional Cancer Programs in identifying and reducing inequities in cancer services. In this study, we conducted a needs assessment to inform the development of new tools and data to meet regional needs.

Approach: Semi-structured one hour interviews were conducted with leadership from seven of fourteen RCPs. Interview questions examined the RCPs knowledge of inequities in cancer prevention and care in their regions. Interviewees were asked about their region's priority research questions related to health equity and on the data requirements for addressing these questions locally. Interviews were held via telephone with multiple stakeholders present (roughly five participants per region, including directors, managers and clinicians), and transcripts were qualitatively analyzed for common themes. A summary of the findings was generated and circulated to all fourteen regions for additional input and validation.

Results: The most common cancer care related inequities, as well as perceived barriers to acting on those inequities, were identified. From a data perspective, of most interest to the RCPs were demographic and social determinant of health (SDoH) characteristics of their regions, including income, education, age, and Aboriginal identity, and geographic distance from cancer services. RCPs were interested in the distribution of these characteristics at the LHIN, sub-LHIN and neighbourhood level. Both area level and individual level data were identified as important. Additional themes regarding screening of patients for SDoH, use of health equity impact assessments, community partnerships and the roles that Cancer Care Ontario and the RCPs play in reducing inequities in the province were examined.

Conclusion: Despite differences between Ontario's 14 RCPs in population and geography, the current needs assessment identified recurring themes in their needs for data and tools to examine equity in cancer services. These results will inform initiatives to support the identification and reduction of inequities across cancer services throughout the province.

All Authors: Diane Burns, Ontario Health - Cancer Care Ontario; Elisa Candido, Cancer Care Ontario; Victoria Hagens, Cancer Care Ontario; Vicky Simanovski, Cancer Care Ontario

Author: Ms. Diane Burns
Title: Health Inequities/disparities in Receipt of Cancer Care in Countries with Universal Health Systems
Type of Abstract: Poster

Objectives: The purpose of this study was to synthesize current knowledge on inequities/ disparities in receipt of cancer care in countries with Universal Health care to guide future Cancer Care Ontario work on identifying and reducing health inequities in cancer care in Ontario.

Approach: We conducted a literature review of published studies focused on inequities/disparities in receipt of cancer care in countries with Universal Health care from the point of diagnosis onwards using PubMed and Google Scholar. Studies deemed relevant for inclusion underwent systematic data extraction to identify equity stratifiers, research focus (access, treatment, and outcome), and phase in the cancer care continuum, disease site and country of research. Studies were further grouped by type of treatment or services received. Results were synthesized and organized into themes.

Results: The literature identified inequities in receipt of cancer care in access, treatment and outcomes. The most common social determinants of health examined in relation to inequities were socio-economic status (SES), distance to specialty services, mental health or other disabilities/ comorbidities and ethnicity/ race. In terms of cancer site, breast cancer was most commonly examined in inequity-related research, followed by lung and colorectal. It was found that later stage at diagnosis, different or no treatment, access to Psychosocial Oncology and rehab services, patient experience and survivorship were influenced by the social determinants of health examined.

Conclusion: The results of this review can be used to examine the Ontario population and regional variations in inequities in receipt of cancer care found in other jurisdictions and can inform the development of policies, programs and services in cancer care.

All Authors: Diane Burns, Ontario Health - Cancer Care Ontario; Zenia Sultan, Master's Program in Health Services Administration, Business Administration, DeGroote School of Business, McMaster University; Victoria Hagens, Cancer Care Ontario; Vicky Simanovski, Cancer

ID: 174
Author: Dr. David Campbell
Title: Implementation of complex interventions to reduce barriers and improve adherence to self-management of chronic conditions: A qualitative descriptive process evaluation
Type of Abstract: Poster

Objectives: The ACCESS trial is a pragmatic randomized trial that is evaluating the impact of two interventions targeting barriers to care among low income seniors with chronic diseases. The interventions include copayment elimination for medications, and a comprehensive self-management support program including facilitated relay of clinical information to participants' healthcare providers.

Approach: We designed a qualitative descriptive process evaluation to better understand participant perspectives on the interventions within this ongoing trial. We used a qualitative descriptive study design, collecting data via individual semi-structured telephone interviews. We purposefully sampled from amongst ACCESS participants to ensure that important strata were represented. Data were analyzed inductively using thematic analytic techniques by multiple independent reviewers. We interviewed 39 participants from the ACCESS study.

Results: Participants stated that copayment elimination provided quality of life benefits, including: allowing them to minimize the need to "cut-back" as much, providing "peace of mind" and emotional support. Health benefits associated with this intervention included: improving medication adherence, helping to afford other (non-covered) medications, helping to afford health supplies and healthier food. Criticisms about this intervention centered on the limitations of the coverage: not all medications are covered and neither are testing supplies for diabetes. Positive feedback regarding the educational intervention included that the educational materials provided helpful information, acted as a reminder, improved confidence and adherence to medication, and helped participants initiate indicated medications. Some participants felt that the educational materials were too repetitive, too medication focused, and not tailored enough to the individual.

Conclusion: The success of complex interventions intended to change behaviours is largely dependent upon participant's feeling that the intervention is helpful. It is important to conduct process evaluations alongside such trials. This qualitative study provides insights into participants' perceptions about our two interventions – both of which were received largely positively.

All Authors: David Campbell, University of Calgary; Terry Saunders-Smith, University of Calgary; Kathryn King-Shier, University of Calgary; Braden Manns, University of Calgary

ID: 109
Author: Ms. Carolyn Canfield
Title: Building a Nation of Partners for Canada's Health Systems: emergence of a community of practice, The Patient Advisors Network (PAN) / Réseau des patients partenaires (RPP)
Type of Abstract: Poster

Objectives: Experienced patient advisors in Canada identify the need to connect across jurisdictions to develop their leadership capacity, knowledge sharing and skills competence for more productive partnerships with healthcare providers, researchers and decision-makers. This project aims to investigate, design and launch an independent peer-based network as a sustainable "community of practice".

Approach: Twelve experienced patient leaders from five provinces committed a year to grassroots organizing as a founding team. Collectively mobilizing considerable insight, energy and organizing talent, they insisted a new entity be founded on integrity, accountability and sustainability. A wealth of lived experience provided rich healthcare understanding spanning settings, demographics, geography, plus remarkable organizing skills including access to like-minded peers collaborating with researchers and decision-makers across the country. Seven months of teleconferences, investigation and reflection produced a Manifesto to frame objectives, terminology, organizational methods, context and guiding principles. Adopting this foundation established a methodology, problem-solving guidance and evaluation. PAN was born.

Results: Eighteen months since inception, the Patient Advisors Network / Réseau des Patients Partenaires is a federally incorporated not-for-profit community of people who return to healthcare as collaborative advisors, after experiencing healthcare as patients, or caring for those who have. The bilingual website PatientAdvisors.ca and members' groupsite, enable patients and caregivers to build trusted networks as they connect to explore pressing challenges in research, consultative and improvement partnership. Diversity characterizes their interests across the spectrum of healthcare services, settings and policy at local to international scales. Our 70+ members' personal networks reach deep into the advisor community, French and English, urban and rural, to tap Canada's vast patient and caregiver expertise. A busy social media presence @PatientAdvisors is followed by 800 patient and professional activists globally.

Conclusion: PAN/RPP demonstrates "proof of concept" for developing capacity by linking patient advisors through an independent national community of practice. Current tasks support growth by sustaining next stage governance, administration and financing consistent with our mandate. Already several advisory consulting contracts are underway to test this business model and membership engagement.

All Authors: Carolyn Canfield, UBC Faculty of Medicine; Heather Thiessen, Saskatchewan Health Authority, Health Standards Organization, Accreditation Canada; Amy Ma, Centre universitaire de santé, MUHC et IR-CUSM

Objectives: To describe the development of an early psychosis integrated care pathway (ICP) intended to optimize coordinated, efficient, and evidence-based care in an acute psychiatric inpatient setting.

Approach: The early psychosis ICP was developed by an interdisciplinary team of psychiatrists, pharmacists, nurses, and allied health clinicians at a large, urban hospital in Vancouver, Canada. A body of evidence was assessed through a systematic literature review and supplemented by clinical consensus to ensure best practice where evidence was lacking. A retrospective chart audit was then undertaken to identify gaps in existing care processes. Building on results of the audit, a prototype ICP was developed over the course of 12 months, with the iterative input of key clinical, operational, and administrative stakeholders.

Results: Our retrospective chart audit identified 73 inpatients with early psychosis (mean age = 22 years; males = 78%; Caucasian = 41%) hospitalized between April 01, 2013 to March 31, 2015. The average length of stay was 33 days, with 23% of patients readmitted within 28 days of discharge. Nurses documented mental status assessments every shift in 19% of care episodes, while physicians prescribed long-acting injectable antipsychotics in 50% of discharges. Even when indicated, fewer than half of all care episodes received referrals to income assistance (35%) and housing support (38%). From the identified variations in care and with provider input, the ICP was developed with standardized processes and tools for clinical assessment, pharmacological intervention, non-pharmacological intervention, and discharge planning.

Conclusion: Early psychosis care delivery varies widely; however, the development of an ICP is a useful way to address care inconsistencies, increase efficiency, and promote uptake of best practice standards. Formally operationalizing an ICP requires an integrated approach, supported by a literature review, retrospective chart audit and extensive stakeholder engagement.

All Authors: Michelle Carter, Providence Health Care; Brenda Vaughan, Providence Health Care; Tamara Mihic, Providence Health Care; Renata Kamieniecki, Providence Health Care; Jennifer Wide, Providence Health Care; Joseph Puyat, Providence Health Care; Kofi Bonnie,

ID: 382
Author: Dr. Eliana Castillo
Title: Protecting Every Mom & Every Baby: Improving Maternal and Newborn Health by Implementing Point of Care Immunization (POC) for Pregnant Women
Type of Abstract: Poster

Objectives: Our study examines the feasibility of implementing Point of Care (POC) immunization during pregnancy at a tertiary care facility by measuring the following:

1. Offer rate: how often do OB care providers offer the vaccine to eligible patients?
2. Vaccination uptake rate
3. Patient and healthcare provider satisfaction

Approach: Our Quality Improvement team mapped and implemented processes required to support POC within relevant inpatient (obstetric triage and antepartum unit) and outpatient obstetric clinics. A pre/post study design across four consecutive influenza seasons [2014-2015 and 2015-2016 (prior to POC implementation) and 2016-2017 2017-2018 (after POC implementation)] was used to determine vaccination uptake and maternal, pregnancy and infant outcomes. Nursing staff received POC and vaccination administration training and nursing "vaccination champions" were identified on each unit. Vaccine offer rates were measured through weekly chart audit while surveys were used to measure nursing staff and patients' perceptions.

Results: While the first season (2016-2017) post POC training and implementation showed non-significant increases in vaccination uptake by pregnant women, vaccination uptake increased during the second season.

Preliminary analyses show that most patients vaccinated at POC during 2016-2017 season were likely to get vaccinated regardless at other locations. They still reported high satisfaction as a result of having vaccination at POC. Outpatient nursing staff experience was very positive, whereas inpatient nursing staff identified multiple barriers to implementation.

For the 2017-2018 season, YTD vaccine offer and uptake rates in outpatient clinics are significantly higher: 68%-78% and 62-69% respectively. YTD vaccine offer and uptake rates in obstetric triage and antepartum unit for the 2017-2018 season are: 33%-45% and 27-86% respectively versus baseline uptake rates of 18-20%.

Conclusion: POC immunization in pregnancy is feasible and improves vaccination uptake in outpatient clinics. Preliminary data shows patients' satisfaction with POC immunization as being high citing convenience and opportunity for risk-benefit discussion with obstetric care provider.

All Authors: Eliana Castillo, Cumming School of Medicine; Deirdre McCaughey, Cumming School of Medicine, University of Calgary; María José Santana, Cumming School of Medicine, university of Calgary; Amy Metcalfe, University of Calgary; Kara Nerenberg, Cumming School

ID: 141
Author: Dr. Deniz Cetin-Sahin
Title: Factors Influencing the Implementation of Elder-Friendly Emergency Department Care: Health-care Providers' Perceptions
Type of Abstract: Poster

Objectives: A comprehensive emergency department (ED) model of care has to meet the multidimensional needs of older adults. This study aimed to explore ED and community care providers' perceptions of the factors enabling or impeding the implementation of elder-friendly ED care.

Approach: A qualitative descriptive study was conducted in 4 urban EDs selected for their variation on care processes (e.g., protocols, discharge planning). 13 frontline ED nurses and physicians, 13 multidisciplinary ED personnel (e.g., liaison nurse, pharmacist) and 7 representatives from the community health and social service centres related to each ED were purposefully selected. Semi-structured telephone interviews investigated factors enabled or impeded implementing elder-friendly ED care. Deductive thematic analysis was conducted to compare perceptions between participants across 4 EDs using a five-level framework for implementation proposed by Chaudoir (2013): innovation (herein called "elder-friendly ED care"), patient, provider, organizational, structural.

Results: Providers perceived elder-friendly ED care mostly as enabling implementation, despite the absence of evidence on its effectiveness. While most participants favoured family presence in ED, some perceived patients' anxiety, resistance to care, and language/culture differences as challenges. Providers' awareness, acceptance, and promotion of elder-friendly ED care facilitated its provision whereas time constraints impeded implementation. Inadequate geriatric expertise, ED workload/staff shortage, delays in consultations or tests/imaging, and the need for staff education on geriatric care were the main organizational challenges. Multidisciplinary and community linkage personnel were usually available to the EDs; however, this support was insufficient during night shifts and weekends. Limitations in physical layout/equipment, primary care coordination, home-care services, and communication systems between ED and community settings, and budget issues were structural challenges.

Conclusion: Our study highlights the need for a multifactorial approach to implementation of elder-friendly ED care. More research evaluating the effectiveness of elder-friendly care and the impact of patient and family education, providers' training, workforce, innovative roles, and some structural improvements on the adoption of elder-friendly practices is needed.

All Authors: Deniz Cetin-Sahin, St. Mary's Research Centre; Francine Ducharme, Université de Montréal; Jane McCusker; Mona Magalhaes, St. Mary's Research Centre; Thien Tuong Minh Vu, CHUM - Hôpital Saint-Luc; Nathalie Veillette, University

ID: 460
Author: Dr. Kathleen Charlebois
Title: Health Professional Level Barriers to Living Donor Kidney Transplantation: Results of a qualitative study
Type of Abstract: Poster

Objectives: The aim of our study is to understand the role of healthcare professionals regarding barriers and challenges related to living donor kidney transplantation (LDKT) as they pertain to the discrepancies among healthcare professionals (HP) when informing their patients about LDKT in Québec, Ontario and British Columbia with different LDKT rates.

Approach: This is a qualitative study aimed at developing a conceptual understanding of barriers to LDKT and, more specifically, impediments to discussions about LDKT between patients and healthcare professionals. Purposive and quota sampling strategies served to ensure recruitment of individuals with different levels of experience and professional backgrounds. Semi-structured interviews were conducted with healthcare professionals across Canada. Thematic analysis was used to analyze the data stemming from these interviews. The coding process comprised both a deductive and inductive approach informed by elements of the interview data.

Results: Sixteen interviews were conducted, eight of which were with participants from Québec, four from BC and four from Ontario. Five interviews were conducted with nephrologists, eight with nurses, two with coordinators (transplant and living donor coordinator) and one with a dietician. Five major themes emerged from this study: 1) lack of communication between transplant and dialysis, 2) the absence of referral guidelines, 3) perceived patient-level barriers, 4) role perception and lack of multi-disciplinarity and 5) eligibility criteria, discussing the risks and benefits of LDKT and lack of training. In situations characterized by a lack of multi-disciplinarity, lack of communication between dialysis and transplant teams, the absence of referral guidelines and strict eligibility criteria, participants mentioned lacking comfort discussing LDKT with patients.

Conclusion: Barriers to LDKT stemming from healthcare professionals, such as the ones identified in this study, can lead to inconsistent and inexplicit recommendations to patients and may intensify inequity in access to LDKT. Recognizing these barriers and alleviating them may increase access to LDKT in earlier stages of kidney disease.

All Authors: Kathleen Charlebois, Douglas Hospital Research Institute; Shaifali Sandal, McGill University; David Kenneth Wright, University of Ottawa

ID: 517
Author: Dr. Dan Chateau
Title: Incorporating Home Care data into a population research data repository: Measuring Incidence, prevalence intensity, and duration
Type of Abstract: Poster

Objectives: Population level data on home care registration, status and visits was recently incorporated into the Manitoba Population Research Data Respository at MCHP. In this research project we examine the prevalence, incidence, and duration of home care delivered by Health Care Aides/Home Support workers (HCA/HSW) and care delivered by nurses.

Approach: Home care data was de-identified and linked to administrative health data with a person level scrambled unique identifier. Preliminary analyses assessed the validity of the data comparing fields across linked data sets.

Linkage to population registry was necessary to calculate accurate to calculate accurate estimates of the incidence and prevalence of home care delivery. These were also stratified by age, sex, income quintile, and urban/rural status, and by home care type (health care aide, nurse, mental health). Visits rates were also calculated for home care delivered by HCA/HSW.

Results: The Home Care data was internally consistent, and also demonstrated excellent concordance with the administrative health data on important demographic characteristics (location, date of birth, sex) and with health care use and vital statistics (mortality). Prevalence rose rapidly with age, with numbers over 50% for men over 85 years old and over 60% for women. In contrast, it was less than 0.5% for people under 40, and still less than 10% for people 65-74. Incidence rates showed a similar pattern with rates over 8 per person year for individuals over 85 and less than 2 per person year for individuals age 65-74. There was a strong relationship between home care use and income, but no relationship with urban/rural status.

Conclusion: Population level data on home care use will help us understand who is using home care, what type of home care, for how long, and to what degree. After establishing the validity of this data, linking it to administrative health and other data increases the capacity to plan its delivery.

All Authors: Dan Chateau, Manitoba Centre for Health Policy, University of Manitoba; Randy Fransoo, Manitoba Centre for Health Policy; Heather Prior, Manitoba Centre for Health Policy; Dale Stevenson, Manitoba Centre for Health Policy, University of Manitoba; Jennifer

ID: 251
Author: Dr. Ivy Cheng
Title: A Tale of Two Healthcare Systems between 2012 and 2016: Success of Reaching Ontario Government Emergency Department Time Targets between a Canadian and Australian Academic Tertiary Level Hospital
Type of Abstract: Poster

Objectives: To compare performance and factors predicting failure of Ontario government time targets between a Canadian (Sunnybrook Health Sciences Center) and Australian (Austin Health) academic tertiary level hospital in 2012. To assess for change of factors and performance in 2016 between the same hospitals.

Approach: This was a retrospective, observational study of patient administrative data in two separate calendar years: 2012 and 2016. The main outcome measure was reaching Ontario ED time targets by admission, high and low acuity discharge groups. Secondary outcomes measured factors predicting failure of government targets. Factors were at the patient level from emergency department registries. Data analytics used descriptive statistics and logistic regression.

Results: Between 2012 and 2016, Sunnybrook and Austin experienced increased patient volume of 10.2% and 19.2%, respectively. Strategies to deal with crowding differed between the hospitals. Austin succeeded for all targets except low acuity discharges in 2012 and 2016. Sunnybrook failed all time targets in 2012 and 2016. For low and high acuity discharges – receiving magnetic resonance imaging, computed tomography, ultrasound, consultation, evening shift or waiting for a physician greater than two hours were the top-ranking factors predicting target failure for both hospitals in 2012 and 2016. Similarly, for admissions, access block greater than one hour or bed request duration greater than six hours were target failure factors for both hospitals in 2012 and 2016.

Conclusion: The Australian hospital out-performed the Canadian hospital on government time targets. Factors predicting failure of government targets were different between hospitals, but mainly clinical resources. Each hospital used different strategies to improve performance.

All Authors: Ivy Cheng, Sunnybrook Health Sciences Center; Michael Schull, Institute for Clinical Evaluative Sciences; Merrick Zwarenstein, Centre for Studies in Family Medicine; Alex Kiss, Institute of Clinical Evaluative Sciences; Maaret Castren, Helsinki University

Objectives: A study was undertaken to develop a case definition for integrated health and social care initiatives that serve older adults in order to identify Canadian-based initiatives. Such initiatives are emerging in Canada but common internationally. This definition was used to identify integrated initiatives across Canada.

Approach: A limited literature review was undertaken to identify common characteristics of integrated health and social care initiatives that serve older adults. The review was based on global integrated health and social care initiatives that serve older adults, and comprised both scientific and grey literature. The development of the definition incorporated the common characteristics identified. This definition was used to undertake an online search of 158,000 Canadian, English-language websites to identify Canadian integrated health and social care initiatives that serve older adults. Eligible initiatives were surveyed to determine their alignment with the literature-based case definition.

Results: The case definition developed is comprised of 24 common characteristics, that can be grouped into ten categories: 1) patient-care approach; 2) program goals; 3) measurement; 4) service and care quality; 5) accountability and responsibility; 6) information sharing; 7) Decision-making and problem-solving; 8) culture; 9) leadership; and 10) staff and professional interaction. This definition identified sixteen Canadian-based integrated health and social care initiatives using an online search. They were community-based initiatives comprised of collaborations between health and social care organizations; their primary purpose is to support referrals and communication. Those initiatives that were surveyed were found to share characteristics to fourteen of the 24 characteristics in the case definition.

Conclusion: With an aging society and increased demand for complex health and social care services, health and social care integration can play an important role in supporting a more whole-person approach to care. Evidence and research from international experiences can shape and inform Canadian health policy and programming.

All Authors: Siu Mee Cheng, Ryerson University; Cristina Catallo, Ryerson University

ID: 360
Author: Ms. PEGGY PEI-CHI CHI
Title: The Evidence on the Associations between Natural Environments and Health Outcomes
Type of Abstract: Poster

Objectives: The use of the natural environment, comprised of systems of living nature and sunlight, is a non-pharmacological approach to health improvement. My scoping review examined how the natural environment impacted health outcomes across health care settings. I will present work on the older adults and staff of long-term care settings.

Approach: A scoping review was conducted that followed the approach outlined by Arksey and O'Malley (2005). This approach was deemed appropriate because the topic was explored using diverse study designs from multiple disciplines, hence setting strict quality assessment criteria would omit relevant work. The databases searched were MEDLINE, EMBASE, CINAHL, PsycINFO, and Cochrane. Included articles were peer-reviewed, empirical or theoretical, and in English. The process included title and abstract screening of 3109 articles between two reviewers, full-text screening of 112 articles, and data charting of 90 articles. Of the included articles, 43 examined older adults in long-term care settings.

Results: The findings were focused on the two main components of the natural environment: sunlight and nature. A large portion of the included articles were studies on older adults living with or without dementia in long-term care homes and some studies were conducted in hospitals' long-term care units. Of these studies, researchers explored window views, sunlight programs, and nature-based programs located in both outdoor and indoor settings. The majority of the work examined natural environment's effect on older adults' physical health, such as vitamin D and sleep. Other findings included mental and social health outcomes, such as behaviour, mood, and social interaction. There were only a few studies that examined staff outcomes, which included job stress and care delivery.

Conclusion: There is an opportunity to create health-promoting environments under Ontario's ten-year strategy to redevelop 300 long-term care homes. As a licensed landscape architect and health services researcher, I am aware that disseminating this evidence can inform the imminent redevelopments and is imperative of immediate importance.

All Authors: PEGGY PEI-CHI CHI, University of Toronto

ID: 379
Author: Dr. François Chiocchio
Title: Managing risk in navigation implementation research: an evidence-based project management approach
Type of Abstract: Poster

Objectives: Multi-stakeholder research on the implementation of patient navigation services in primary care is challenging. Risks that are not addressed early can derail the conduct of the research itself or the implementation of navigation services. Our objective is to identify and mitigate risks associated with managing complex research in primary care.

Approach: Risks are unknown or unclear concerns, issues, situations, or events with the potential to impede project processes or outcomes. A Delphi-type multi-step risk management process modeled on evidence-based project management research was conducted with the Access to Resources in the Community (ARC) research group. ARC's research aims to improve access to community resources in the Champlain LHIN region of Ontario. Steps included electronic anonymous individual consultations to identify, rate, and prioritize risks based on likelihood and impact, followed by consensual group discussions to design a risk management plan to optimize the conduct of the research.

Results: Research team members (N=13) generated a consolidated list of 69 risks thought to hinder the successful conduct of the research. Risks with the highest likelihood and impact (i.e., 14; 20%) were included in the risk management plan. The plan consisted of 29 concrete actions to prevent or mitigate risks. These actions were then included in the regular project planning. One risk was primary care practices champions' lack of engagement. Risk management actions included "clarifying champions' roles and responsibilities at the onset" and "meeting champions one on one periodically to review roles and responsibilities". Subsequent team meetings included three topics: (1) assessing the effectiveness of the risk management actions, (2) discussing whether other actions would be necessary, and (3) adjusting the project plan accordingly.

Conclusion: Evidence-based approaches from the field of project management have not permeated into health care implementation research projects. Using the ARC study, we demonstrate the value of conducting risk management prior to and throughout the conduct of implementation research projects to maximize the likelihood of delivery of the research as planned.

All Authors: François Chiocchio, Professor, Organisational Behaviour and Human Resource Management; Justin Presseau, Ottawa Hospital Research Institute; Alain Gauthier, ; Patrick Timony, Centre for Rural and Northern Health Research; Marie-Hélène Chomienne, Institut

ID: 160
Author: Ms. Ashley Chisholm
Title: Trendspotting- The use of forecasting in nursing associations to prepare for the future
Type of Abstract: Poster

Objectives: To provide strategic information on international, national, and provincial trends that have the potential to impact the Canadian health care system and nursing; 2) to promote a culture of ongoing forecasting that informs decision-making and planning.

Approach: A literature review was conducted on environmental scanning and foresight planning. A small cross-divisional team conducts regular scanning and forecasting to identify shared trends and emerging priorities, then synthesizes this information quarterly for dissemination. Further research is conducted to elaborate on emerging trends and identified issues where required.

Results: Given an increase in access to information, rapid advancement in technology, and volatile global politics, there is an increasing appetite among nursing associations to incorporate strategic foresight within organizational planning and response. After two quarterly cycles of implementation, preliminary results have found climate change, emergency preparedness, housing, seniors, and non-medical cannabis education to be high-impact trends for provincial and national nursing associations. Each trend has been presented to leadership for immediate discussion and direction. The forecast is also used to undertake strategic planning, inform decision making, improve policy discussions, as well as to keep leadership informed of potential future challenges. Associations are now more prepared to tackle the ever changing health environment.

Conclusion: The development of forecasting at the provincial and national level improves awareness of emerging policy trends. Environmental scanning is a frequently used as a tool to understand the current context, however, we submit that it can be used to forecast how nursing associations prepare for the future.

All Authors: Ashley Chisholm, Canadian Nurses Association; Jennifer Dotchin, College & Association of Registered Nurses of Alberta

ID: 590
Author: Mrs. Maud-Christine Chouinard
Title: Working together: the place of community organizations and community pharmacies in case management program for frequent users.
Type of Abstract: Poster

Objectives: The aim of the presentation is to improve the understanding of the community organizations and community pharmacies roles towards frequent users of health services and to identify forces and constraints regarding their integration to case management programs targeting this population.

Approach: The proposed approach is based on the six domains of the care integration's model of the National Collaboration for Integrated Care and Support (2013, UK): patient's goal and/or expected outcomes, information, communication, decision making, care planning and transitions. A descriptive qualitative method has been used. Individual interviews and focus groups have been realized in the six local services networks of the Saguenay-Lac-Saint-Jean region (Quebec) with high frequent users, community organization's representatives, community pharmacies, clinicians and managers of the regional Health and Social Services Center. Experiences and opinions collected have been analysed according a mixed thematic analysis method.

Results: It appears that the community sector offer an increased proximity to frequent users. The presence of these organizations in the persons' living environment promotes better knowledge of the frequent user's living conditions and a better access to their services. Community organizations and pharmacies are kind of "sensors" of the collectivity. Their proximity is manifested by a trusting relationship reinforced by their intervention approaches like health promotion, informal and proximity intervention, harm reduction, empowerment, referencing and accompaniment. Those ones are based on the users' needs rooted on the "here and now" as well as user-friendly, low-bureaucratic and high-accessibility structures. However, a lack of "organizational proximity" between the community sector and the healthcare network is characterized by an organizational culture a mutual ignorance and lack of recognition.

Conclusion: The study reveals that inter-organizational and inter-professional concertation between community organizations and healthcare services supported by decision-makers and managers would have positive impacts on the integration of care. This would be coherent with the actual trends of primary care services like interdisciplinary, patient-centered approach and case management for frequent users.

All Authors: Maud-Christine Chouinard, Université du Québec à Chicoutimi; Catherine Hudon, Université de Sherbrooke; Véronique Sabourin, CIUSSS du Saguenay-Lac-Saint-Jean; Caroline Savard, CIUSSS du Saguenay-Lac-Saint-Jean; Mathieu Bisson, Université de Sherbrooke

ID: 546
Author: Mr. Mohammad Chowdhury
Title: Updating hypertension prediction through meta-modeling to improve the predictive ability in general population.
Type of Abstract: Poster

Objectives: Hypertension is one of the most common medical conditions, affecting 1 in 5 Canadians, and represents a major risk factor for heart attack, stroke, and mortality. The goal of the proposed research is to develop a robust hypertension prediction model for the general population using the Alberta's Tomorrow Project Data.

Approach: Prevention of hypertension is considered a major public health priority. One strategy to achieve preventive rigor is to target individuals who are at higher risk of developing hypertension. Combining known major risk factors into a meta-model for risk stratification may help to identify individuals at highest risk and who would potentially benefit most from intervention. A number of hypertension prediction models have been developed. Each model has its own inherent strengths and weaknesses based on the underlying population characteristics and data from which they were derived. Importantly, efforts are needed to improve risk prediction.

Results: A conventional prediction model will be developed using logistic regression. Candidate variables will be selected based on clinical reasoning. Internal validation will be performed using 10-fold cross-validation. Meta-modeling is a regression technique which incorporates new data to update estimates from existing prediction models with the goal of improving model performance. Meta-model updating approach will be used where parameters derived from the existing hypertension prediction models (which will be identified through systematic review of the literature) incorporated into the conventional model. The performance characteristics of the updated model will be assessed along with model discrimination and calibration in predicting the incidence of hypertension in normotensive individuals in Alberta.

Conclusion: The proposed meta-model updating technique, which is based on refining existing estimates with new data, may potentially improve the performance of the prediction model for identifying individuals at highest risk for developing hypertension and who should be targeted for healthy behavioral changes and/or medical treatment.

All Authors: Mohammad Chowdhury, University of Calgary; Tanvir Chowdhury, University of Calgary; Alexander Leung, University of Calgary; Khokan Sikdar, University of Calgary; Maeve O'Beirne, University of Calgary; Hude Quan, University of Calgary

ID: 582
Author: Mr. Mohammad Chowdhury
Title: Social Support and Mild Cognitive Impairment (MCI) Risk at Baseline of the Canadian Longitudinal Study on Aging Study (CLSA)..
Type of Abstract: Poster

Objectives: Dementia is a common in the elderly population, which is often preceded by mild cognitive impairment (MCI). Social supports are hypothesized to prevent or slow cognitive decline. We sought to evaluate associations between social support and mild cognitive impairment using data from nationwide study, the Canadian Longitudinal Study on Aging.

Approach: We identified MCI by characterizing typical performances of neurologically healthy people on the cognitive measures employed in the CLSA as standards. We have defined MCI as performance on 2 or more cognitive tests with 1.5 standard deviations (SD) below the age- and sex-adjusted mean with preserved activities of daily living (ADL), excluding self-reported dementia or Alzheimer's disease. Social support in CLSA was assessed using medical outcome study (MOS) scale, a multidimensional functional social support index which includes 19 items. We obtain an overall support index, by calculating the average of all 19 items with higher index indicates more social support.

Results: Of the 30,097 individuals included in analysis, 15,320 (50.9%) were female between 45-85 years old. We identified 2,214 individuals with MCI, 1,105 (49.9%) of which were female. We divide social support index into quartiles according to the intensity of social support a patient received. The MCI rate is 34.3, 25.1, 22.3, and 18.3 percent for the first, second, third and fourth quartile social support groups respectively. After adjusting for age, sex, social status and comorbidities, the logistic regression analyses showed an increased social support is significantly associated with decreased MCI (OR = 0.74; 95% CI: 0.70, 0.78; $p < 0.001$). Compare to the lowest quartile, highest quartile social support is significantly associated with reduced MCI (OR = 0.61; 95% CI: 0.54, 0.69; $p <0.001$).

Conclusion: Social support is associated with MCI and the association become stronger with the intensity of social support a MCI patient received. These findings suggest, increased social support can be an important prevention strategy for lowering MCI incidence.

All Authors: Mohammad Chowdhury, University of Calgary; Guanmin Chen, Alberta Health Services; Zhiying Liang, University of Calgary; Hude Quan, University of Calgary

ID: 212
Author: Ms. Cherry Chu
Title: Trajectories of Homeless Shelter Utilization in the At Home/Chez Soi trial of Housing First
Type of Abstract: Poster

Objectives: Studies have shown that Housing First (HF) is effective in reducing service utilization in homeless individuals with mental illness, but less is known about how HF affects patterns of service use over time. This study explores latent class trajectories of shelter utilization in a pan-Canadian trial of HF.

Approach: Data from the At Home/Chez Soi (AHCS) randomized controlled trial were analyzed. Homeless individuals with mental illness (n=2058) were recruited from five major Canadian cities (Vancouver, Winnipeg, Toronto, Montreal, and Moncton), and were assigned to HF or treatment-as-usual (TAU) conditions. Latent class growth analysis was performed using days of shelter utilization to identify class trajectories over 24 months. Multinomial logistic regression was used to assess which baseline variables, including treatment group, were associated with particular trajectories of use.

Results: Four latent class trajectories were identified: low shelter use (n=1631, 79.3%), mostly low shelter use (n=120, 5.8%), early increase in shelter use (n=179, 8.7%), and late increase in shelter use (n=128, 6.2%). Treatment group was a significant predictor of class membership - those enrolled in HF had higher odds of experiencing trajectories of low shelter use compared to TAU participants. Other predictors of class membership included age, gender, alcohol and drug abuse/dependence, income, total time homeless, and suicide risk. Variables such as ethnicity, education, and baseline psychiatric diagnosis did not appear to predict trajectory.

Conclusion: Results suggest heterogeneity in the characteristics of shelter users and their patterns of utilization, and that certain subgroups may be more vulnerable to increased homelessness. Findings also provide further evidence on the effectiveness of HF in reducing homeless service utilization. This information can be used to inform homeless services planning.

All Authors: Cherry Chu, McGill University; Erica Moodie , McGill University; David Streiner; Eric A Latimer, McGill University

Author: Dr. Anna Maria Chudyk
Title: Reflecting on models and frameworks of patient engagement
Type of Abstract: Poster

Objectives: Patient engaged research challenges researchers to reflect upon and change how they approach research. Specifically, researchers need to address the flow of information and decision-making between patients, researchers, and other stakeholders. In this review of models and frameworks of patient engagement in health research, key components are identified and discussed.

Approach: We systematically searched 7 electronic databases and followed up with snowball sampling to identify eligible models and frameworks. We included published and unpublished models and frameworks that aimed to describe patient engagement in health research and systems. Excluded were those not written in English or that focused on patient engagement in clinical decision making. Two authors screened studies for inclusion and extracted data. Disagreements were resolved by consultation with a third author when necessary. We applied the methods of Damschroder (2009) to identify components that overlapped (present in at least one study) and diverged between eligible models and frameworks.

Results: We identified six models and frameworks of patient engagement. Among these models and frameworks some overlap among components was revealed, yet each model or framework was missing 1 or more components found in the others and terminology was inconsistent. At a first level of analysis that adheres to source study authors' labels, we identified 21 key components; of these, 12 were divergent. The 9 convergent categories (n studies that include this component) were: education/co-learning (3), creation of environments conducive to patient engagement (3), respect (3), co-creation (2), re-distribution of power (2), reciprocal relationships (2), recognition of diversity (2), transparency (2), and valuing lived experience (2). We identified these across three stages of the research process: agenda setting; methods and design; implementation, dissemination, and sustainability.

Conclusion: Models and frameworks of patient engagement address the flow of information and decision making between stakeholders throughout the research process, but divergence may leave researchers feeling uncertain of how to proceed. A synthesis of overlapping components will inform the development of a model for patient engagement in primary healthcare research.

All Authors: Anna Maria Chudyk, University of Manitoba; Annette Schultz, College of Nursing, Faculty of Health Sciences, University of Manitoba; Carolyn Shimmin, The George and Fay Yee Centre for Healthcare Innovation; Lisa Demczuk, University of Manitoba; Celeste Wal

ID: 176
Author: Ms. Sarah Cooper
Title: The Impact of Primary Care on Outcomes in Vulnerable Children: A Population-Based Retrospective Cohort Study in Quebec, Canada
Type of Abstract: Poster

Objectives: Vulnerable children, such as those with low socioeconomic status (SES), have increased healthcare needs. Having a source of primary care is associated with better overall outcomes. We sought to determine: 1) association between SES and outcomes (ED visits, hospital admissions); 2) whether primary care mediates socioeconomic inequalities in outcomes.

Approach: Design/Setting/Patients or other participants: Population-based retrospective cohort study using provincial health administrative data from 2010-2013 representing children (n=1,238,114) aged 0-18 years old.

Main exposure: Socioeconomic status (material and social deprivation index, i.e. Pampalon index)

Confounders: age, gender, health status (asthma, diabetes, complex comorbidities or none), rurality, PC model (Family Medicine Groups [FMGs], family physicians not part of FMGs, pediatricians, or no PC), previous healthcare utilization, interaction term PC model*socioeconomic status.

Outcomes: ED visits (main outcome), hospital admissions (secondary) We used generalized estimating equations with logit link in order to account for clusters of care within local health regions.

Results: Overall, 34.08% of children had ED visits and 8.35% of children had been admitted to the hospital. Children from the most deprived SES quintile were more likely to have no primary care (5070%) compared to those from the least deprived SES quintile (38.81%). Children from the least deprived SES quintile were more likely to live in an urban neighborhood and have a pediatrician. In the regression models, children from the most compared to the least deprived SES quintile were more likely to have an ED visit, and this association was greater in those who had no primary care (OR 1.15; 95%CI: 1.13-1.17) compared to those with primary care (FMG: OR 1.07; Pediatrician: OR 1.12; non-FMG: OR 1.06). A similar trend was observed for hospitalizations.

Conclusion: Primary care may mediate socioeconomic inequalities in acute health service use.

All Authors: Sarah Cooper, McGill University ; Patricia Li, Montreal Children's Hospital, McGill University; Elham Rahme, McGill University

ID: 191
Author: Ms. Élizabeth Côté-Boileau
Title: From local settings to large-scale system transformation: spreading, sustaining and scaling healthcare innovations
Type of Abstract: Poster

Objectives: Quality Improvement Collaborative Designs are demonstrating positive impacts on quality of care through the spread, sustainability and scale (SSS) of healthcare innovations within and across jurisdictions. However, little is known on how to operationalize these processes. We explored the definitions, mechanisms and common themes of SSS of healthcare innovations.

Approach: We conducted a four-phase scoping review based on Arksey & O'Malley's framework (2005) (adapted by Pham et al., 2014). First, we identified our research question as: "how to spread, sustain and scale healthcare innovations within health systems?". Secondly, we scoped relevant studies through six databases (MEDLINE, Academy Search Complete, Buisness Source Complete, CINAHL, PsycINFO and SocINDEX) from September 2016 to April 2017, examining the first ten pages of results. Thirdly, we selected revelant papers through a two-processes screening: we first screened each article by title and abstract, an then by full-text. Finaly, we collected, summarized and reported our results.

Results: We included 22 peer-reviewed articles and 18 papers from grey literature published from 1995 to 2017. Three key findings emerged from the literature. First, SSS has not been consistently defined; what is commonly stated is that SSS can be characterized as a social, dynamic, and unpredictable processes. Evidence also support that SSS should not be understood as well-delineated phases from spread, to sustainability to scale. Secondly, many articles provided practical frameworks and tools but cautioned against taking a prescriptive or standardized approach to achieving the SSS across jurisdictions. Scholars tend to generally organized the mechanisms of SSS around substance (innovation), processes, stakeholders and context. Finally, a thematic analysis revealed the importance of distributed leadership, relationships, organizational culture, time and pace, and context to successful SSS.

Conclusion: SSS of healthcare innovations are iterative journeys that are facilitated and inhibited by a series of factors and processes that are inherent to changing and adapting heath systems to current and future contingencies. Further studies should explore these complex processes through empirical policy analysis research designs.

All Authors: Élizabeth Côté-Boileau, University of Sherbrooke; Jean-Louis Denis, University of Montreal; Bill Callery, Canadian Foundation for Healthcare Improvement; ,

ID: 95
Author: Dr. Danielle de Moissac
Title: Comparison of Messaging on Research Collaboration by French and English Health Region Websites: Results of a National Review
Type of Abstract: Poster

Objectives: A national review of health region websites focused on evidence of research partnership between regions and academic researchers. The purpose was to compare French and English region websites for insight into similarities and differences in webpage content across official language entities in messaging both evidence use and research collaboration.

Approach: This research, a component of a larger study exploring guidance for health system leaders in establishing and managing research partnerships to improve organization of health services, used content analysis to review websites of 69 Canadian health regions (25 French, 43 English, 1 bilingual). All pages of each site were reviewed for the following elements: evidence of guidelines for research partnerships, and overall messaging related to importance of research, collaborative undertakings, evidence use, and knowledge translation activities. Using standard review guidelines, we assessed whether an element was directly, partly, or not addressed.

Results: Many similarities were found across websites: strong emphasis on patient engagement and collaboration between service providers to improve access to and quality of services; trend to greater emphasis on community engagement in rural/northern regions; limited reference to evidence-informed practice, and greater attention to research partnership and collaboration associated with proximity to academic centres. Compared to English sites, a greater proportion of French regions provided evidence of research partnership: 17 of the 25 websites reported affiliation to universities and/or research centres. Most partnerships were in the area of clinical research; some were community based. The majority of websites also provided information on research/ethics review processes. However, few examples of leadership in the area of research partnerships or policy and criteria or guidance for collaboration were observed.

Conclusion: While evidence of research partnerships is more apparent in French health region websites, further research is required to determine whether academic research affiliations lead to greater collaboration. The absence of identifiable guidelines for collaboration across Canadian regions suggests a need for development of guidance in this area.

All Authors: Danielle de Moissac, Université de Saint-Boniface; Ingrid Botting, Univeristy of Manitoba; Sarah Bowen, Applied Research and Evaluation Consultant; Ian Graham, University of Ottawa/ OHRI; Karen Harlos, University of Winnipeg; Martha MacLeod, University of

Title: A realist evaluation of a mobile application to improve diabetes self-management: What works, for whom, and in what circumstances?

Objectives: To evaluate the potential of a mobile health application for improving self-management in type 2 diabetes (T2DM) by identifying key combinations of contextual variables and mechanisms of action that explain who the application worked best for and under what circumstances.

Approach: A qualitative realist evaluation embedded in a randomized controlled trial. Semi-structured telephone interviews were conducted at baseline (T1), and towards the end of the intervention period (3 months; T2). Topics included participants' experiences of using the virtual solution and barriers to and facilitators of both self-management and effective application use. Transcripts were analyzed using thematic analysis, after which the key themes were used to develop statements of the relationships between the (a) key contextual influences, (b) mechanisms of action, and (c) impact on the primary outcome (HbA1c).

Results: Twenty-six interviews (14 baseline, 12 follow-up) were completed with 16 participants with T2DM with three key groups emerging: the easiest fit, the best fit, and those who failed to engage. Individuals with high baseline self-efficacy (SE) who were motivated, took ownership of their actions, and prioritized diabetes management were early and eager adopters, and demonstrated reductions in HbA1c (mean=1.5%). Individuals with moderate baseline SE and no competing priorities were slow to adopt use of the application but achieved greater reductions in HbA1c (mean=1.7%). The final group had low baseline SE and identified a range of psychosocial issues and/or competing priorities and were uncertain of the benefits of using a mobile application to support self-management. These individuals demonstrated minimal engagement and no change in HbA1c.

Conclusion: Self-efficacy, competing priorities, and beliefs about mobile health applications interact to influence engagement and impact on HbA1c. Considering these characteristics can help identify individuals who are apt to benefit. Utilizing screening measures may help identify individuals at risk of suboptimal adherence and may benefit from the provision of additional support(s).

All Authors: Laura Desveaux, Women's College Hospital; Jay Shaw, Women's College Hospital; Lianne Jeffs, St Michael's Hospital; Marianne Saragosa, Women's College Hospital; Jennifer Hensel, Women's College Hospital Institute for Health Systems Solutions and Virtual C

ID: 410
Author: Ms. Sarah Dimick
Title: Digital Technology Adoption for BC's Health System; Six Pathways for Success
Type of Abstract: Poster

Objectives: This research seeks to evaluate the effect of adoption of digital technologies by healthcare groups on productivity, innovation as well as patient and health care provider experience and outcomes. It highlights the need for improved performance and productivity in Canadian healthcare and current initiatives already underway within British Columbia.

Approach: This research draws on a growing body of literature, web-based survey responses and a collection of over twenty detailed interviews. An extensive literature review aimed at transitions to technology use in health care as well as the effects of appropriate digital technology adoption informed the primary data collection. Interviews were conducted, targeted at recognized experts in health care innovation, as well as with health care providers from a broad spectrum of perspectives working to adopt technologies in their daily practices. These detailed interviews were complimented by a web-based survey which reached a further 60 health care providers across the province.

Results: Technology can be a powerful and transformative tool. It can facilitate opportunities for improved systems, productivity gains and innovations. The adoption of appropriate digital technologies has the potential to significantly improve productivity. For healthcare digital technology is not an end, but a "means of improving the quality of healthcare, the health of populations and the efficiency of healthcare systems."

We identified a series of eight barriers and six pathways to digital technology adoption.

The lesson of potential impact of a successful technology adoption must be repeated, demonstrated, and shared because "one mistake will resonate forever." This is especially true for healthcare where caring for patients' health and wellbeing is the prime focus. There simply is no room for mistakes.

Conclusion: For each of the eight identified barriers, this work provides a pathway or pathways through the challenge based on respondents' experiences, especially focusing on their successes. Finally, this work explores the potential for patients themselves to have a role driving change in the healthcare system they depend on.

All Authors: Sarah Dimick, Sarah Dimick & Associates

ID: 207
Author: Dr. Emilie Dionne
Title: Multi-service integration of care in Primary Health Care in Canada: Identifying Priority Services and Programs for children and youth with high functional needs and community-dwelling older adults experiencing functional decline.
Type of Abstract: Poster

Objectives: Comprehensive management for complex patients requires integration with social services and community supports. We are analyzing innovative programs and policies that regulate multi-service integration of care throughout Canada. We sought to identify top priority services/programs that must connect for optimal care of two patient populations with complex care needs.

Approach: We used a Nominal Group Process to identify the range of services/programs to be connected. To prioritize the most important services/programs, we invited about 20 clinical and patient-partner co-applicants to participate over a 10-day period in a series of virtual meetings and asynchronous online exchanges. The resulting services/programs and implied operational definitions were then submitted to a larger group composed of researcher, decision-maker, and patient partner co-applicants. We used an electronic modified Delphi process to define and rank services, and to obtain consensus. A final virtual meeting with patient partners resolved outstanding areas of divergence.

Results: Two lists of priority services/programs deemed necessary to be connected with primary health care were created for two patient populations with high functional needs. These included social, public health, and community services/programs. These lists were approved by about 40 clinical, researcher, decision-maker and patient-partner co-applicants from all ten Canadian provinces. Through the same process, we also developed a typology of operational definitions for the listed priority services/programs. The lists operate as a tailored-to-patient population package for integration of care services and continuity of care that, in effect, provides a tailored to patient definition for an expanded Primary Health Care.

Conclusion: Our typology provides an operational overview of the services/programs that compose Primary Health Care across provinces for integrating health-social-community services in Canada. Our results provide a novel way of looking at Primary Health Care to support effectively decision-makers and care providers in providing care for patients with complex care needs.

All Authors: Emilie Dionne, McGill University // St. Mary's Research Centre; Jeannie Haggerty, McGill University; Yves Couturier, Unversity of Sherbrooke; Cathie Scott, Alberta Centre for Research with Children, Families & Communities; Amélie Quesnel-Vallée, McGill Un

Title: Narrative-based Methodology for Qualitative Health Research: Ensuring Rigor, Consistency and Efficiency in a Mixed-Methods Health Research Evaluation Protocol
Type of Abstract: Poster

Objectives: The aim of this presentation is to describe how narrative-based qualitative methods designed for a mixed-method evaluation protocol of interventions in Primary Health Care (PHC) can facilitate qualitative analysis in three different sites (Québec, Ontario and Alberta) to study interventions aimed to improve access to primary care for vulnerable populations.

Approach: High-quality narrative-based approaches to qualitative research were used for a mixed-method evaluation protocol of PHC that aims to improve access to care for socially vulnerable populations. Two theoretical frameworks of the research program: 1) a conceptual framework of access to care (Lévesque, Harris, and Russell, 2013) 2) a logic model used to design 6 unique interventions in PHC, served as the basis for the development of coding templates to analyze qualitative data collected from interviews with participants. Data was coded using an approach that combines tape-based analysis using nVIVO software and narrative analysis by way of narrative summaries.

Results: In order to ensure that geographically dispersed qualitative researchers apply the narrative-based approach to qualitative analysis with consistency, three major instruments were developed: : 1) coding templates tailored to theoretical framework for respective data sources (e.g., interviews with patients, providers, or other); 2) a combination approach of tape-based analysis and narrative approach to data collection and analysis to collect and code data; 3) a protocol for qualitative data analysis. Coding templates were designed to provide flexibility and recognition for the local realities of each intervention all the while ensuring consistency and rigor for the overarching theory used to design and implement the interventions. We anticipated about 45 interviews with providers and 45 interviews with patients, at baseline, to be coded and analyzed using this method.

Conclusion: Narration-based approach to qualitative research is gaining interest, consideration and momentum in health research. It provides a high-quality combination of qualitative rigor, appropriateness, and efficiency to data analysis, and is well suited for evaluation research.

All Authors: Emilie Dionne, McGill University // St. Mary's Research Centre; Cathie Scott, Alberta Centre for Research with Children, Families & Communities; Kathleen Charlebois, Douglas Hospital Research Institute; Darene Toal-Sullivan , Bruyère Research Institute ;

ID: 482
Author: Dr. Emilie Dionne
Title: Perspectives of Socially Vulnerable Patients and their Providers on Challenges to Accessing Primary Health Care: A qualitative analysis
Type of Abstract: Poster

Objectives: IMPACT is a Canadian-Australian research program that aims to improve access to care for vulnerable populations via organizational interventions in primary health care (PHC). This presentation provides an overview of qualitative baseline results collected from socially vulnerable patients and providers from three Canadian sites where organizational interventions have been implemented.

Approach: The baseline interview data collection approach involves a longitudinal study over a six-month period. Semi-structured interviews of patients and providers were conducted before and after the intervention was received by the patient. Interviews were held in person. To address our research questions, we employ an overarching logic model that encompasses our locally implemented interventions, and the Levesque et al.'s (2003) Access to Care Conceptual Framework. For the analysis, we developed internationally agreed upon coding templates tailored to our theoretical frameworks. The coding templates were applied locally by local analysts. We use nVIVO software to code and analyze the data.

Results: Baseline results from patient (n≈45) and provider (n≈45) interviews from three different sites show 1) the challenges faced by vulnerable patients when accessing, or attempting to access, PHC services; 2) the characteristics of vulnerable patients; and 3) shed light on possibilities for improving access to PHC services, as well as their delivery. The poster will also present preliminary analysis from follow-up interviews conducted with same patients and providers on these sites. Analysis will focus on emerging themes from the perspectives of patients and providers regarding 1) perceived main challenges to access to care for vulnerable patients, 2) barriers that can affect the capacity, ability, or willingness of providers to provide care, and 3) perspectives on how to improve access to care for socially vulnerable patients.

Conclusion: This study provides insights on the needs of patients and providers to improve access to PHC care and to quality care in different contexts. It channels the input of providers and patients regarding main challenges to access for these patients and main barriers providers faced by providers when providing care.

All Authors: Emilie Dionne, McGill University // St. Mary's Research Centre; Cathie Scott, Alberta Centre for Research with Children, Families & Communities; Ryan Mallard, University of Calgary - Lethbridge Campus; Jillian Barnes, University of Lethbridge; Darene Toa

ID: 424
Author: Dr. Gail Dobell
Title: Improving the Measurement of Patient Experience with Transitions in Care in Ontario
Type of Abstract: Poster

Objectives: In collaboration with the LHINs, Health Quality Ontario released the Ontario Patient Experience Measurement Strategy in 2016. Improving the measurement of patient experience with care transitions was a priority of the strategy given a lack of transitions data. This project identifies and imbeds transition experience questions into existing provincial surveys.

Approach: A multi-phase approach was used to identify seventeen patient experience with care transitions concepts. Phases included a literature review to select a conceptual framework and identify measurement concepts. Iterative engagement with four committees that included patients, caregivers, quality improvement (QI) specialists, providers, and system-level decision-makers refined the draft concepts. An adapted RAND/UCLA Appropriateness Methodology was used with the committees to rate the concepts for their importance, utility for reporting and quality improvement. These ratings informed working group discussions on which concepts were best suited for system-level surveys versus sector-specific surveys.

Results: The seventeen selected concepts form the foundation from which concept customization and survey questions appropriate for system, sector or condition-focused surveys are selected. For example, four concepts have been adapted into six survey questions now included in the Ministry of Health and Long-term Care's Health Care Experience Survey, a population-based survey. The process to customize the concepts and survey questions to specific sector or condition surveys includes conducting a literature review of the sector's transition issues, seeking sector and patient feedback for face validity in relation to the patient journey, refinement to maximize usability for quality improvement and identification of opportunities for validation and data sharing.

Conclusion: This approach to imbed transitions questions in system and sector or condition surveys is Ontario's first attempt to build a comprehensive picture of patient experience with transitions in care. Understanding the patient experience with transitions can help us address issues, and ultimately improve patient experience across the health care system.

All Authors: Gail Dobell, Health Qualtiy Ontario; Jonathan Lam , Ontario Health (Quality); Bernadee Koh-Bilodeau, ; Carolyn Barg, Health Quality Ontario; Rachel Frohlich, Health Quality Ontario

Title: Funding DAC - The study survey on diabetes related complications that helped start SPOR Network Diabetes Action Canada
Type of Abstract: Poster

Objectives: To explore the importance of complication-related research topics among a diverse range of people living with or caring for someone living with diabetes. The results infomed a CIHR funding application to create a network dedicated to improving the treatment and management of the disease and its complications.

Approach: We used a convergent mixed-method design with quantitative and qualitative aspects. We surveyed a national sample of people living with diabetes and caregivers of people with diabetes, asking them to rate the importance of 10 predetermined important research topics. Additionally, we also held three focus groups in two major cities (Montreal and Quebec City) to explore research concerns of people who are often under-represented in research and have a higher prevalence for developing diabetes and subsequent complications (indigenous people, immigrants and seniors).

Results: 469 adults (57% men, 42% women) in Canada completed the online survey, indicating that all 10 areas of research mattered to them, with the highest ratings accorded to preventing and treating kidney, eye and nerve complications. Socio-demographic information gathered during the survey also confirmed that under-represented groups are less involved in research. The fourteen individuals participated in three focus groups and similarly noted the importance of research on those three complications and additionally noted the importance of research around daily management. No new topics were identified.

Conclusion: This study underscored the importance of research topics among a population of people living with diabetes. Findings from this study were used to inform the vision and successful CIHR funding grant for Diabetes Action Canada (2015-2020)— the pan-Canadian Strategy for Patient-Oriented Research (SPOR) Network on diabetes and its complications.

All Authors: Maman Joyce Dogba, Université Laval Département de médecine familiale et de médecine d'urgence; France Légaré, Laval University; Holly Witteman, Laval University; Mylène Tantchou Dipankui, Université Laval; Selma Chipenda Dansokho, Université Laval; Mary

ID: 331
Author: Dr. Maman Joyce Dogba
Title: 'My research is your research' - Engaging patients as experts:The case of Diabetes Action Canada's Patient Circles
Type of Abstract: Poster

Objectives: To engage and include a diverse body of people living with diabetes or caring for someone living with diabetes in order to foster patient-oriented research and more relevant solutions aimed at improving the treatment and management of diabetes and its related complications.

Approach: There are three Patient Circles of diverse people living with diabetes or caring for people with diabetes. Each Circle (Collective, Indigenous, Francophone) includes 12-16 members and meets regularly. The Collective Patient Circle includes liaisons from each of the other Circles. Liaisons facilitate communication between Circles and the Network.

Patient Circles advise and guide Diabetes Action Canada on multiple levels to ensure that the Network is responsive to what matters to patients. Patient Circles provide guidance to researchers and the Network's governance structures to make our work more relevant to patients. Over time, the structures of Circles may change.

Results: Patients provide expertise in many ways, including their experience of living with diabetes and, if applicable, complications; experience with the health system (care delivery), experience with specific treatments (drugs, surgeries, devices), and community needs. The impact of the Patient Circles has been largely positive and enlightening to the Network. Our teams are already now more cognizant of terminology, stigmatization, nutrition at events, barriers to accessing care, challenges faced by patients and the place that having/managing a chronic illness has in an individual's life regardless of age, gender, cultural background or socio-economic circumstance.

Conclusion: So far, the Patient Circles have proven to be an invaluable asset and hold an integral role in the operation and success of our network. Having these Circles within the research team, has and will foster more relevant solutions and improvements for all people whose lives are touched by diabetes.

All Authors: Maman Joyce Dogba, Université Laval Département de médecine familiale et de médecine d'urgence; Mary Zettl, Université Laval; Olivia Drescher, Université Laval; Holly Witteman, Laval University; Marie-Claude Tremblay, Université Laval

ID: 592
Author: Ms. Chelsea Doktorchik
Title: Coding Agreement on Identification of Main Resource Use Using ICD-10 and ICD-11
Type of Abstract: Poster

Objectives: Main condition coding definitions in the International Classification of Disease (ICD) 10th and 11th versions are broadly defined in the current and upcoming versions of ICD, and coding health data can involve subjective coding specialist interpretation. We compared main resource use condition coding agreement between ICD-10 and ICD-11.

Approach: 730 hospital charts were from Foothills Hospital in Calgary, Alberta. These charts were previously coded using ICD-10, and six professional coding specialists recoded them using ICD-11. To compare frequencies of ICD-10 to ICD-11, we used current WHO crosswalk tables to match codes. For any missing codes, manual comparison was done by a reviewer with clinical experience. In Canada, the "main condition" is the clinically significant reason for the hospital visit. If multiple problems were present, "main condition" is the diagnosis using the greatest amount of resources ("main resource use").

Results: Overall, 730 ICD-10 coded charts were analyzed. Of these charts, 79% (577/730) had matching resource coding between ICD-10 and ICD-11, and 21% (153/730) had mismatching coding. Matching coding was either considered an exact match between definitions (23.2%, 134/577), or similar but not identical (often one code has greater detail, 76.8%, 443/577). Mismatching codes were either due to different codes for similar conditions (13.1%, 20/153), different codes for not similar but related conditions (43.8%, 67/153), or completely different codes for unrelated conditions (43.1%, 66/153).

Conclusion: The ICD-10 and ICD-11 main resource codes had a high match frequency indicating consistency between coding practices and ICD definitions. Future research will be conducted to understand causes of mismatched main resource use codes between ICD-10 and ICD-11. This research will contribute to future ICD-11 revision.

All Authors: Chelsea Doktorchik, University of Calgary, Department of Community Health Sciences; Cathy Eastwood, University of Calgary; Danielle Southern, University of Calgary; Hude Quan, University of Calgary

ID: 76
Author: Ms. Nicole Doria
Title: Creating a tool for evidence-informed health policy: Identifying the research and policy conditions that enabled the Nova Scotia Health Atlas
Type of Abstract: Poster

Objectives: This study sought to identify the research and policy conditions that enabled the initiation and launch of the Nova Scotia (NS) Health Atlas (healthatlas.ca), and the determinants of its creation as a tool for evidence-informed health policy-making in the province of Nova Scotia.

Approach: A qualitative study design was employed to collect data from a purposively sample of provincial health care stakeholders who were either involved in the development of the NS Health Atlas or identified as target users of the NS Health Atlas representing one of three stakeholder groups: policy-makers, health researchers, and community health organizations. One-on-one semi-structured interviews were conducted with 12 participants: 3 from the Government of Nova Scotia; 3 from the Nova Scotia Heath Authority; 3 health researchers; and 3 community health organization representatives. Data were coded and thematically analyzed.

Results: Four themes emerged identifying the research and policy conditions that allowed for the development of the NS Health Atlas: (1) leadership, (2) collaboration, (3) culture, and (4) preceding events. A Policy Champion; a collaborative team with a vested interest (researchers, government, and health authority); an environment of trust, accountability, and transparency; and the ability to learn and grow from the past were all critical conditions in enabling the development and success of the NS Health Atlas.

Conclusion: This study documents the research and policy conditions that enabled the successful development of an evidence-informed health policy tool in a provincial context. The case of the NS Health Atlas can help inform ongoing efforts to support evidence-based decision-making in Nova Scotia and elsewhere.

All Authors: Nicole Doria, Maritime SPOR SUPPORT Unit ; Laura Dowling, Maritime SPOR SUPPORT Unit; Adrian MacKenzie, Maritime SPOR SUPPORT Unit

ID: 307
Author: Dr. Adam D'Souza
Title: Improving the Coding Completeness of Hypertension in Inpatient Administrative Health Data Using Machine Learning Methods
Type of Abstract: Poster

Objectives: The Discharge Abstract Database (DAD) associates ICD-10-CA diagnosis codes with inpatient care episodes at acute-care facilities. The codes are assigned by human coders, based on a review of charts. This research evaluates machine learning approaches for identifying and completing records with missing codes, in order to improve data quality.

Approach: The Alberta Hospital DAD for 2013-14 was used in this study. We assumed that the existing ICD-10-CA codes in the DAD are correct, and used them as training examples. Several ML classifiers, including logistic regression and random forest, were used to develop models to assess the coding probability, using existing codes and demographic information. We created three kinds of data features: raw diagnosis codes, counts of codes at different levels, and probabilistic-based features. 3300 chart-review records were used as the reference standard. We focused on hypertension-related codes. Validity of raw diagnosis codes in the DAD was used as the baseline.

Results: A record is deem to have the issue of a missing hypertension diagnosis code if the predicted probability is high, but without the diagnosis codes having been assigned by the coders. In the baseline, the original codes have high positive predictive values but low sensitivity. The most successful models that we have tested so far have provided an improvement of 2-6% in the sensitivity, while maintaining a PPV greater than 0.9.

Conclusion: Machine learning approaches can be useful and cost-effective for improving data quality in DAD. While the improvements in sensitivity relative to the baseline are modest at present, further experiments with different models and feature sets are warranted. Experiments with other conditions such as diabetes or depression may also be fruitful.

All Authors: Adam D'Souza, University of Calgary; Zhiying Liang, University of Calgary; Tyler Williamson, University of Calgary; Tony Smith, Faculty of Computing & Mathematical Sciences, The University of Waikato; Hude Quan, University of Calgary; Mingkai Peng, Univer

ID: 132
Author: Mr. Guillaume Dumais-Lévesque
Title: Acquiring Disease Self-Management Skills: A Knowledge Synthesis of Programs for Adolescents
Type of Abstract: Poster

Objectives: Transition from pediatric to adult setting is a critical step for adolescents and to ensure its success, acquiring disease self-management skills is an important and challenging task. The purpose of this knowledge synthesis was to review evaluated disease self-management skills acquisition programs and extract from them the most efficient actions.

Approach: A systematic analysis of the scientific literature providing interpretive synthesis was made in August 2016 in the Medline, Embase and CINAHL databases based on articles published in French or English, in a peer-reviewed journal between 2009 and 2016, which described a competency development program and included its evaluation. Fifteen articles were selected following a double reading of the abstracts.

Data was extracted using a standardized twelve items matrix.

Results: The implemented interventions were divided into three main non-exclusive categories namely individual support, transition plan preparation and use of therapeutic education. Methodologies used for evaluation of each program was either quantitative, qualitative or both.

Conclusion: Few transition programs have been evaluated and often, study designs are not of optimal quality. The most useful interventions offer a contact with a real person responsible for helping adolescents navigate the process of the transition. On the other hand, Reference manuals seem to be outdated and inefficient.

All Authors: Guillaume Dumais-Lévesque, École de santé publique de l'Université de Montréal; Marie-Pascale Pomey, University of Montreal

ID: 610
Author: Dr. Cathy Eastwood
Title: Advancing data collection of hospital-related harms: Innovations with International Classification of Disease 11th Beta Version (ICD-11)
Type of Abstract: Poster

Objectives: Hospital safety performance is difficult monitor when under-coding of hospital harms is common. The beta version of ICD-11 includes a 3-part model for coding harms to enhance adverse event descriptions. This method includes code clusters for detail each condition/event (e.g. bleed), cause (e.g. anticoagulant drug), and mode (over-dose). The study

Approach: objective was to compare the proportion of adverse events captured in ICD11 to clinical chart review.

Approach: A large field trial of 3000 inpatient charts are being coded with ICD-11 and chart review. Hospital admissions were randomly selected between January and June 2015 for adults at 3 Calgary hospitals, births excluded. Chart reviewers were nurses trained to identify 11 categories of harms, and six coding specialists were trained to code with the ICD-11 3-part model for harm description. Coding decision trees and case examples of hospital-related harms were reviewed extensively by both teams. Coding training focused on new

Results: codes, code clustering, and extension codes for cause and mode of the harm. Results:Of the 730 records reviewed and coded using ICD-11 to date, 50% were female, average age 66. Chart reviewers and coding specialists accurately identified 100% of the same 80 cases (11.1% of 730) with documented hospital harms. In order of frequency were hospital acquired infections (35%), traumatic injuries (14%), surgery related complications (8%), pressure ulcers (7.5%), gastrointestinal complications (7.5%), fluid management related events (6.25%), drug related events (5%), respiratory complications (5%), and other (11.25%). Cause and mode classification showed greater variation between data collection methods. Detailed analysis will follow. Study case examples will demonstrate advanced features of ICD-11 and the coding rules being collaboratively developed by our team, CIHI, and

Conclusion: and WHO representatives. Conclusion: Identification of hospital-related harms was consistent between coding specialists using ICD-11 principles and clinical chart reviewers. Variation existed in determining the cause and the mode of the harm. Case examples exemplify the new 3-part model for ICD-11 description of hospital-related harms.

All Authors: Cathy Eastwood, University of Calgary; Danielle Southern, University of Calgary; Hude Quan, University of Calgary; Alicia Boxill, University of Calgary

ID: 104
Author: Dr. Louisa Edwards
Title: Quality of life and wellbeing in seniors enrolled in a non-medical home support program: results from a longitudinal survey of the Better at Home program
Type of Abstract: Poster

Objectives: Home support services have proliferated to help Canadian seniors 'age in place'. One example is Better at Home (BAH), a non-medical home support program in British Columbia. This study reports findings from a longitudinal survey of BAH enrollees, undertaken to assess quality of life and wellbeing outcomes.

Approach: Within a mixed-methods study, seniors in 73 BAH sites were invited to participate in telephone-administered surveys (enrollment, 6 and 12 months post-enrollment). Standardized outcomes included health-related quality of life (EQ-5D-5L) and broader quality of life and wellbeing instruments (e.g., Adult Social Care Outcomes Toolkit (ASCOT); Older Person's Quality of Life Brief (OPQoL-Brief)). Use of informal assistance, independence and social connectedness ratings, and socio-demographics were also collected. Primary analyses examined changes to 6 months in quality of life and wellbeing indices and their dimensions, using paired t-tests. Logistic regressions explored socio-demographic and outcome predictors of BAH service use.

Results: The Research Team received permission to contact 420 newly enrolled clients; 58% (242/420) completed the baseline survey. Follow-up rates exceeded 80% at 6 and 12 months. Analysis of index scores demonstrated negligible, although some statistically significant, changes to 6 months. For example, ASCOT scores improved (Mbaseline=0.76, M6M=0.79; p=0.003) and OPQoL-Brief scores worsened (Mbaseline=52.21, M6M=51.14; p=0.009). Greatest overall improvement was in 'Control over daily life' (ASCOT) and biggest decrement in family/friend helping perceptions (OPQoL-Brief). Worse baseline self-reported general health and lower baseline EQ-5D-5L predicted greater likelihood of BAH service use at 6 months (ps<.05). Most participants (90%) agreed/strongly agreed that BAH helped with independence, but responses regarding social connectedness benefits were mixed (43% agreed/strongly agreed). Irrespective of service usage, ~75% reported receiving informal assistance throughout.

Conclusion: Quality of life and wellbeing outcomes remained stable for seniors enrolled in a non-medical home support program. Despite unimproved health-related quality of life, poorer initial health suggested sustained program usage. Enhanced independence of seniors could positively impact the health system. BAH might supplement, but does not reduce informal assistance.

All Authors: Louisa Edwards, Faculty of Health Sciences, Simon Fraser University; Centre for Clinical Epidemiology and Evaluation, Vancouver Coastal Health Research Institute; Kimberlyn McGrail, School of Population and Public Health, University of British Columbia; C

ID: 324
Author: Ms. Shiraz El Adam
Title: The Effect of Increasing Minimum Wages on Adverse Birth Outcomes in Canada
Type of Abstract: Poster

Objectives: To determine the effect of increasing minimum wages in Canada on risks of post-neonatal deaths and adverse birth outcomes between 2000 and 2014.

Approach: Using a rigorous quasi-experimental study design, three outcomes (post-neonatal mortality, preterm birth, and small for gestational age birth) are drawn from complete national datasets between 2000 and 2014 using Statistics Canada's Births and Deaths Databases. The main explanatory variable will be minimum wages between 2000 and 2014 by province/territory. Provinces/territories are grouped by the pattern of minimum wage changes. An interrupted time series analysis is used for provinces with less frequent and more substantial minimum wage hikes. Poisson regression models including potential confounders, province, and time variables are used to model provinces with more frequent/constant (annual) increases in minimum wage.

Results: Recent studies in the United States show that increasing state level minimum wages is associated with fewer adverse birth outcomes including infant deaths. It is unclear if similar effects might be observed in Canada given differences both in minimum wage increases and health care system structure. Forthcoming results by the time of the conference with non-significant findings would challenge the generalizability of evidence from the United States. Regardless, results will be interpreted in context of a universal healthcare system and other maternal and child health targeted policies, and will provide Canadian health and economic policy makers Canadian data with which to make informed decisions.

Conclusion: Adverse birth outcomes vary across Canada, are associated with long term complications, and place significant economic burdens on families and the health care system. This study's findings may introduce new directions in shaping health systems and identifying modifiable risk factors that could prevent lifelong health disparities rooted in early infancy.

All Authors: Shiraz El Adam , BC Cancer Agency ; Kimberlyn McGrail, School of Population and Public Health, University of British Columbia; Centre for Health Services and Policy Research, University of British Columbia

ID: 210
Author: Dr. Sarah Erdman
Title: Impact of inclement weather on risk of falls and fall-related injuries
Type of Abstract: Poster

Objectives: Falls are the number one cause of injury amongst older Canadians. Inclement weather may increase the risk of falls and the severity of fall-related injuries. We sought to explore, at a population level, the relationship between various weather variables and falls in older adults (aged 65 years and older).

Approach: This retrospective population-level cohort study examined falls and fall-related injuries in a 3-year period (April 2012-March 2015) in adults over 65 years of age living in Ontario. Falls and fall-related injuries were obtained from linked health administrative databases at ICES. Meteorological variables captured at weather stations across Ontario for the corresponding time period were obtained from Environment Canada. A novel slipperiness score, devised and validated by the Finnish Meteorological Institute, was used as a measure of the severity of slippery outdoor conditions. Multivariate models adjusting for individual factors will be created to predict risk of falls in particular weather conditions.

Results: A total of 363,209 first time falls were experienced by older adults living in Ontario during the 3-year time period. Gender and age at first fall both seemed to differ based on season, with 26.7% of men experiencing their first fall in winter compared to 25.1% of women (p<.001), and adults aged 65-69 experiencing 27.4% of their first falls in winter, compared to 24.5% of those aged 90 and over (p<.001). Slipperiness score was associated with a higher rate of surgery for a fall-related injury (8.1% of those who fell during a day with the highest slippery score versus 6.8% of those who fell during the lowest slippery score, p<.001). Snow and average temperature were also associated with more surgeries and hospitalizations for falls.

Conclusion: Weather conditions, such increased snow and lower temperatures, are associated with more severe falls in older adults living in Ontario. A validated slipperiness index may help predict days when older adults are at risk of more severe falls, and this could be used as a public health warning system.

All Authors: Sarah Erdman, University of Ottawa; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Glenys Smith, ICES uOttawa; Sarah Funnell, University of Ottawa

ID: 415
Author: Ms. Noushon Farmanara
Title: Provincial Primary Integrated Care Profiles: Documenting the integration of primary health care services in Canada
Type of Abstract: Poster

Objectives: Comprehensive primary care management of patient populations with complex care needs requires social services, public health services, and community supports. Our objective was to produce a landscape of provincial primary medical care governance, scope, delivery, reform, and integration with other services in a systematic and harmonized process.

Approach: For each province (n=10), we drew from gray and published literature, government websites, and information from key informants to populate data collection templates. The data collection template captured the: (i) provincial-level oversight and governance of primary medical care and community-based services, (ii) scope of services included within primary care, (iii) extent of centralization and regional governance of primary medical care, (iv) main primary medical care delivery models, and (v) key reforms to primary medical care. Provincial profiles were shared with provincial lead researchers and knowledge users to validate the data collected and to identify gaps in information.

Results: Validation of the provincial profiles is in progress. We experienced a number of important challenges in documenting policy contexts across the Canadian provinces. In general, policy information was difficult to locate and information was often out-of-date. Some provinces had undergone organizational restructuring within their health ministries during the course of our data collection. Furthermore, we experienced challenges in identifying the appropriate level of analysis to determine the governance authority for primary care and other priority services, as shared governance does not necessarily imply coordination and communication across portfolios. The existence of formal mandates or agreements for coordination across services was difficult to identify based on publicly available information.

Conclusion: Quality care for patients with complex needs requires strong integration of primary care with other community-based services. Recognizing the multi-level nested nature of policies, we provide provincial portraits of the current macro-level governance structures, scope, delivery, and integration of primary care to contextualize future analyses.

All Authors: Noushon Farmanara, McGill University; Amélie Quesnel-Vallée, McGill University ; Tara Stewart, George and Fay Yee Centre for Healthcare Innovation; Emilie Dionne, McGill University // St. Mary's Research Centre; Jeannie Haggerty, McGill University

ID: 300
Author: Mrs. Sarah Filiatreault
Title: UMBRELLA REVIEW OF HIP FRACTURE PRACTICE GUIDELINES WITH A SYNTHESIS OF RECOMMENDATIONS FOR THE PRE-OPERATIVE PERIOD
Type of Abstract: Poster

Objectives: To promote best practice through knowledge translation, this review was conducted to locate, retrieve, and critically appraise practice guidelines for the management of patients with hip fractures. Given increasing evidence that early recognition and management is integral to achieving optimal outcomes, recommendations for the pre-operative period were synthesized and compared.

Approach: Umbrella reviews are an emerging form of evidence synthesis and involve the review of synthesized evidence when more than one systematic review or practice guideline exists for a practice issue. A multi-phased search was conducted to locate relevant practice guidelines published in English using three bibliographic databases; three guideline network websites; and three healthcare safety and quality organization websites. The retrieved practice guidelines were independently appraised by three reviewers using the Appraisal of Guidelines Research and Evaluation (AGREE)-II instrument followed by a synthesis of the recommendations for the pre-operative period with consideration given to the strength of the supporting evidence.

Results: Appraisal of the five retrieved practice guidelines revealed significant variability in their quality with overall ratings ranging from 22 to 89%. The greatest variability was in 'rigour of development' (7 to 93%). Lower scores were generally obtained for 'applicability' (15 to 65%), and higher scores for 'scope and purpose' (61 to 94%). Recommendations for pre-operative management were grouped into six categories: timing of surgery, expedited patient management, identification and treatment of correctable co-morbidities, pain management, preventative measures, and multidisciplinary management. The evidence reported for the majority of recommendations is expert opinion/consensus. Discordance is evident among recommendations for the management of pain and for expediting patient throughput. Conversely, a recommendation found in all practice guidelines is to not delay surgery for patients receiving anticoagulation therapy.

Conclusion: Results of this review illustrate that not all practice guidelines are created equally. Given the costs associated with the development and maintenance of high-quality practice guidelines, such work may be more efficiently completed through international healthcare improvement collaborations and then adapted for national and regional healthcare contexts.

All Authors: Sarah Filiatreault, University of Manitoba; Marilyn Hodgins, University of New Brunswick; Richelle Witherspoon, University of New Brunswick

ID: 342
Author: Dr. Kathryn A. Fisher
Title: Impact of Multimorbidity Including Mental Health Conditions on Disability
Type of Abstract: Poster

Objectives: Existing research suggests that people with mental health conditions are socially and medically complex, often experiencing higher physical health burdens, disability and service use. This study uses Canadian population-based data to examine how mental health conditions combined with other chronic physical health conditions and socio-demographic factors relate to disability.

Approach: We use baseline data on people aged 45+ from the Canadian Longitudinal Study on Aging (CLSA) (n=51,338). We include self-reported mental health conditions (mood, anxiety), seventeen physical health conditions, and disability measured by limitations on 14 activities of daily-living. Exploratory factor analysis identified common condition clusters. We estimated the prevalence of mental and physical health conditions and multimorbidity using two definitions (0-1 vs 2+ and 0-2 vs 3+ conditions). We compared average limitations by age and sex for people with multimorbidity which included or did not include mental health conditions, and explored links between social participation and mental health conditions.

Results: Overall, the average number of chronic conditions was 2.58, with 14.77% having none and 44.42% having 3 or more. The most common conditions were hypertension (37.56%), eye conditions (30.87%) including glaucoma, cataracts, and/or macular degeneration, and arthritis (29.25%). The prevalence of mental health conditions was 19.67%. Factor analysis showed four clusters: a cardio-metabolic cluster, a neurological cluster, a miscellaneous cluster, and one that included mental disorders with other highly-symptomatic conditions (e.g., arthritis, respiratory conditions, migraine headaches). For all age groups, the average limitations increased with the number of chronic conditions, and was higher when multimorbidity included a mental health condition compared to only physical conditions. People with mental disorders were more likely than those without to cite health conditions as factors limiting social participation.

Conclusion: Mental disorders in people with multimorbidity tend to cluster with highly-symptomatic physical conditions, such as arthritis and migraines, and are associated with higher levels of disability and social participation limitations. These results suggest that mental disorders in people with multimorbidity may be linked to higher levels of burden and need.

All Authors: Kathryn A. Fisher, School of Nursing; Lauren E. Griffith, McMaster University; Andrea Gruneir, University of Alberta; David Kanters, McMaster University; Jenny Ploeg, McMaster University; Maureen Markle-Reid, McMaster University

ID: 574

Author: Mary Fox

Title: The Relationships Between the Geriatric Practice Environment, Nursing Practice, and the Quality of Hospitalized Older Adults' Care in Ontario

Type of Abstract: Poster

Objectives: To test the relationships between the geriatric practice environment, geriatric nursing practice, and the overall quality of care for older adults and their families as reported by nurses working in hospitals, while controlling for nurse and hospital characteristics.

Approach: A cross-sectional Dillman's tailored survey design was employed. A questionnaire was mailed to a randomly selected sample of nurses whose primary practice area was medicine, surgery, geriatrics, emergency, or critical care in acute care hospitals in Ontario, Canada. Participants (n = 2005) working in 148 hospitals responded to validated measures of the geriatric practice environment (geriatric resources, interprofessional collaboration, and organizational value of older people's care), geriatric nursing practice (patient-, family-, and function-centred care), overall quality of care for older adults and their families, and nurse and hospital characteristics. The relationships were tested using structural equation modeling.

Results: Controlling for nurse and hospital characteristics, the geriatric practice environment had a statistically significant positive relationship of large magnitude with both geriatric nursing practice (β= 0.52) and overall quality of care (β= 0.92); however, the indirect relationship between the geriatric practice environment and overall quality of care, mediated by geriatric nursing practice, was not significant (β = -0.02). Final model fit was acceptable with the Root Mean Square Error of Approximation = 0.07, Comparative Fit Index = 0.93, and Tucker-Lewis Index = 0.87.

Conclusion: A strong geriatric practice environment directly influences geriatric nursing practice and overall quality of care for older adults and families, but does not appear to influence overall quality of care indirectly through geriatric nursing practice. Findings validate the importance of the environment to both nursing practice and quality of care.

All Authors: Mary Fox

ID: 577

Author: Mary Fox

Title: Nurses' Perspectives on the Geriatric Practice Environment and the Overall Quality of Older People's Care in Ontario Acute Care Hospitals

Type of Abstract: Poster

Objectives: To describe Ontario nurses' perceptions of the overall quality of care for older people and the geriatric practice environment (comprised of geriatric resources, interprofessional collaboration and organizational value of older people's care), and examine if these perceptions differ by professional designation and hospital teaching status.

Approach: A cross-sectional Dillman's tailored survey design was employed. A questionnaire was mailed to a randomly selected sample of nurses working in acute care hospitals in Ontario. Participants (n = 2005) working in 148 hospitals responded to validated measures of the geriatric practice environment and overall quality of care for older adults and their families, and nurse and hospital characteristics. One- and two-way ANOVAs were used to compare overall quality of care and the geriatric practice environment variables by nurses' professional designation (RN versus RPN) and hospital teaching status (teaching versus non-teaching), and their interactions.

Results: Scores on overall quality of care and the geriatric practice environment variables (interprofessional collaboration and organizational value of older people's care) averaged slightly above the midpoint except for geriatric resources which was slightly below. Compared to RNs, RPNs provided higher ratings of overall quality of care [$F_{(1, 1936)} = 19.94$, $p = .00$], interprofessional collaboration [$F_{(1, 1931)} = 11.07$, $p = .001$], organizational value of older people's care [$F_{(1, 1937)} = 9.84$, $p = .002$], and geriatric resources [$F_{(1, 1990)} = 3.79$, $p = .052$]. No significant differences were found by hospital teaching status.

Conclusion: Nurses' perceptions of older people's care and the geriatric practice environment differ by professional designation but not hospital teaching status. Teaching and non-teaching hospitals should both be targeted for practice environment improvement initiatives in which older people's care is highly valued and interprofessional collaboration around this care is adequately resourced.

All Authors: Mary Fox

ID: 161
Author: Mr. Kirk Furlotte
Title: Totally OUTright in Nova Scotia: Educating Young GB2STQ+ Men as Sexual Health Leaders
Type of Abstract: Poster

Objectives: Totally OUTright in Nova Scotia (TOinNS) was a pilot program to develop sexual health leadership in young gay, bi, two-spirit, trans, and queer (GB2STQ+) men. Originally developed by the Community-Based Research Centre for Gay Men's Health, TOinNS was the first adaptation to span an entire province, focusing on rural inclusion.

Approach: Peer recruiters conducted outreach to a diverse group of participants. Online recruitment through Facebook and Grindr reached potential trainees not formally connected to larger GB2STQ+ communities. Existing curriculum was updated by TOinNS advisory committee members to include transgender and rural issues. TOinNS was held over four days, with a series of interactive workshops lead by diverse local GB2STQ+ community facilitators. Topics included GB2STQ+ health history, consent, health promotion, HIV, health research, harm reduction, mental health, masculinities, and more. Each day included time for personal reflection, group discussion, evaluation, and group project work followed by semi-structured social time.

Results: Of the 18 young GB2STQ+ men (aged 18 to 29) recruited, 8 identified as non-cisgender, 4 Indigenous, black or of colour, 4 had disabilities or significant illness, and 9 were from non-urban centres. Social media was the primary source of recruitment. Participation increased a sense of community engagement and led to new personal and professional connections. Key messages included greater knowledge of HIV, harm reduction, STI testing, risk reduction, mental health/addictions, body positivity, healthy relationships, and transgender health. In follow-up interviews at four months, GB2STQ+ men indicated reduced loneliness, heightened awareness of intersectionality, improved self-esteem, and efficacy in educating others. Participants demonstrated desire for greater education through more time devoted to each topic though some felt emotionally drained by content.

Conclusion: Feedback from participants and staff indicates TOinNS achieved its goal of developing young GB2STQ+ men as sexual health leaders. Participants have maintained connections through social media with one another and facilitators. Meaningful and relevant learning has lead to improved connection to the broader LGBTQ+ community and increased advocacy.

All Authors: Kirk Furlotte, Community-Based Research Centre; San Patten, San Patten and Associates; Chris Aucoin, AIDS Coalition of Nova Scotia

ID: 535
Author: Ms. Danie Gagnon
Title: Identifying and responding to the needs of older francophone women of New Brunswick who experienced intimate partner violence in later life
Type of Abstract: Poster

Objectives: Little is known about the needs of older francophone women of official language minorities who experience Intimate Partner Violence (IPV) in later life. This study seeks to contribute knowledge to meet the needs of older francophone women who experience IPV in later life and recommend supports to meet their

Approach: A series of 10-15 semi-structured interviews will be conducted among older francophone women in New Brunswick who experienced IPV in later life. Participants will be recruited through formal family violence research and intervention networks as established through the Muriel McQueen Fergusson Centre for Family Violence Research. Interviews will be analyzed through a phenomenological approach to gain a better understanding of the lived experience of these women. These findings will be the base from which recommendations will be drawn following the Better Practices Model to inform decision-making.

Results: Older Francophone women living outside of Quebec often find it difficult to access services in their language. Language barriers reduce access to services based on communications and has a significant impact on health outcomes. In addition to uncovering language as a barrier to access services, we expect our analysis to reveal the intersection of ageism and sexism as playing a role in their lived experiences. Current IPV research, policies and programs largely focus on women of childbearing age. Moreover, sexism exists within elder abuse research and practice. Where old age is emphasized over gender, this offers a focus on women who experience abuse from a medical or care perspective, rather than within an intimate partner relationship.

Conclusion: The findings of this study will provide information and evidence to meet the needs of older francophone women who experience IPV in later life. The recommendations can be used by governments and community organizations to address issues surrounding support and service provision to improve health outcomes of these women.

All Authors: Danie Gagnon, UNB; Lori Weeks, Dalhousie University

Title: Mental Health Care Utilization Among Youth with Mental Disorders: Hours and Types of Services Consulted
Type of Abstract: Poster

Objectives: The objective of this study was to examine individual (e.g., age, sex, education, income, perceived need), neighborhood (i.e., community size) and health region-level (i.e., regular source of care) correlates of mental health service utilization (i.e., types of services and hours of consultation) among youth with depressive and substance use disorders.

Approach: In this cross-sectional study, data from the Canadian Community Health Survey (CCHS) 2011-2012, Mental Health (CCHS-MH) and Annual Components and the Postal Code Conversion File Plus (PCCF+) were linked and analyzed to examine individual, neighborhood, and health region-level determinants of mental health services utilization among youth with mental disorders (i.e., depressive, substance use disorders, and comorbid disorders). The data were weighted using bootstrap weights based on the Canadian population of individuals aged 15 to 24 years to ensure accurate representation of the youth population, and a series of sequential multinomial logistic regression analyses were conducted.

Results: Results indicated that women were more likely to consult services from one type of professional (general practitioner or psychiatrist) than did men. Completion of high school only decreased the odds of consulting different types of professionals (e.g., general practitioner and psychologists) relative to completing higher education. Perceiving a need for care increased the odds of consulting services by 45%. In addition, living in urban areas was related to different type of services utilization. Youth who had a family doctor were 2 times more likely to receive more hours of consultation than youth who did not have a family doctor. Findings demonstrated that 25% of youth with comorbid disorders received more hours of consultation, compared to 9% of youth with substance use disorders.

Conclusion: This study used a nationally representative sample of youth to examine mental health services utilization, providing reliable population estimates of the contribution of individual and ecological determinants on mental healthcare use. Implications and future directions for the health care system will be discussed.

All Authors: Scott Ronis, University of New Brunswick; Isabel Garces Davila, University of Manitoba; Paul Peters, Carleton University

ID: 605
Author: Ms. ISABEL GARCES DAVILA
Title: Post Traumatic Stress Disorder in Victims of Child Abuse: The Role of Social Determinants on Mental Health Care Utilization
Type of Abstract: Poster

Objectives: The purpose of the study was: 1) to examine the association between child abuse and PTSD in Canadian adults, and 2) to examine the relation between social determinants and mental health service utilization among adults with PTSD who experienced child abuse.

Approach: This cross-sectional study used data from the public files of the Canadian Community Health Survey-Mental Health(CCHS-MH,2012). Response rate in CCHS-MH was 68.9%, from 27,500 participants. This study focused on respondents aged 20 to 64 years (N=16,972). The analyses were weighted to ensure representation of the Canadian population in this age group. Logistic regressions were conducted to examine the association between child abuse(i.e., physical and sexual abuse) and PTSD. Then, logistic regressions stratified by sex were conducted to explore social determinants(e.g., education, income) related to professional mental healthcare utilization(i.e., consulted/did not consult services) among adults with and without child abuse history.

Results: The results indicated that physical and sexual abuse experienced in childhood was related to the occurrence of PTSD in adulthood, OR=1.64, 95% CI [1.49, 2.08] for sexual abuse, and OR=1.46, 95% CI [1.38, 1.55] for physical abuse. With respect to service use, PTSD was associated with service utilization among females OR=1.30, 95% CI [1.25, 1.67], higher income (e.g., $100,000 + per year) was related to mental healthcare utilization (e.g., psychiatrist) among females OR=1.04, 95% CI [1.02, 1.12]; but not among males OR=.94, 95% CI [.84, 1.04]. In addition, females who perceived a need for care were four times more likely to consult services than males OR=4.69, 95% CI[4.23, 5.19]. Being employed was associated to increased odds of consulting services for males OR=1.36, 95% CI[1.06, 1.58].

Conclusion: This study provides evidence on childhood abuse associated with PTSD in later years. In addition, this study adds to the scholarly literature on determinants of professional mental health services utilization, and these results can be used to inform policy strategies aimed at prevention of child abuse and subsequent consequences.

All Authors: Mateo Penaherrera-Aguirre, University of Arizona ; Janelle Boram Lee, University of Manitoba; Tracie Afifi, University of Manitoba; Janique Fortier, University of Manitoba; Isabel Garces Davila, University of Manitoba

ID: 469
Author: Dr. William Gardner
Title: Changing Rates of Self-Harm by Sex in Adolescents Presenting to Ontario Emergency Departments: A Repeated Cross-Sectional Study
Type of Abstract: Poster

Objectives: Adolescents presenting to emergency departments (EDs) with self-harm are at increased risk for suicide and mental health disorders. Recent data suggest that adolescent ED visits for self-harm and mental health may have increased. The objective was to investigate the trends by sex for adolescent self-harm and mental health ED visits.

Approach: This was a repeated cross-sectional design. The setting was all EDs in Ontario, Canada. Participants were all adolescents with a provincial insurance plan number presenting to an ED from 2003 to 2015 (N = 3,879,020 visits). The main outcome measures were rates of visits with ICD-10-codes for intentional self-harm (X60-X84) or mental disorder (any F code), per 1000 adolescents in the province, calculated from records in provincial administrative health databases. Regression discontinuity models were used to capture changes in the yearly rates of change in self-harm and mental disorder visits (i.e., their slopes), for the total population and by sex.

Results: During 2003-2015, there were 31,515 self-harm visits (0.8%). From 2003 to 2009, self-harm visits fell 36%, from 3.2 to 2.0 youths/1000 adolescents (slope = -0.23 youths/1000 (95% CI = [-0.28, -0.18], $p < 0.001$). During 2009-2015, visits rose 114% to 4.3 youths/1000 (slope = 0.43 youths/1000/year (95% CI = [0.38, 0.48], $p < 0.001$). During 2003-2009, mental health visits rose 15.2% from 15.1 to 17.0 youths/1000 (slope = 0.29 youths/1000/year (95% CI = [0.11, 0.46])). During 2009-2015, mental health visits rose 61% to 28.1 youths/1000, slope = 3.40 youths/1000/year (95% CI = [2.84, 3.97], $p < 0.001$). Girls had more self-harm visits (average 4.7 youths/1000) than boys (1.2 youths/1000, $p < .001$) and steeper increases in the rates of self-harm visits post-2009 ($p < 0.001$).

Conclusion: Rates of self-harm and mental health ED visits have increased sharply since 2009, with higher increases in girls. More research is required to understand the determinants of adolescent self-harm behaviour, the factors determining which self-harming adolescents will present to the ED, and the causes of sex differences in visit rates.

All Authors: William Gardner, Departments of Epidemiology and Psychiatry, University of Ottawa; Lisa Currie, Children's Hospital of Eastern Ontario Research Institute; Paula Cloutier, Children's Hospital of Eastern Ontario Research Institute; Roger Zemek, Department o

ID: 223
Author: Ms. Stephanie Garies
Title: Enhancing primary care electronic medical record (EMR) data in Alberta by quality assessment, data processing, and linkage to administrative data
Type of Abstract: Poster

Objectives: Data from primary care electronic medical records (EMR) are an emerging source for disease surveillance. This study will assess EMR data quality within the context of hypertension surveillance; develop data processing techniques to address quality issues; and link EMR data to administrative data to explore its utility for hypertension surveillance.

Approach: Data quality will be assessed using a framework developed for Canadian primary care EMR data (eHealth Observatory at University of Victoria), consisting of 7 dimensions: completeness, correctness, concordance, comprehensibility, informative sufficiency, consistency of form/capture. The quality assessment will inform development of analytic solutions (i.e. multiple imputation, association rule mining) to improve areas of poor quality. These data will then be linked with administrative data (hospital/emergency department visits, pharmacy records) using deterministic and probabilistic methods. The use of linked data for hypertension surveillance will be explored by comparing differences in case ascertainment, prevalence estimates, and clinical outcomes for each data source.

Results: This work is still in progress and will focus on Alberta EMR data extracted as part of the Canadian Primary Care Sentinel Surveillance Network (CPCSSN). At the time of presentation, the data quality framework modified to fit the context of hypertension surveillance will be described. Provider consent for linkage of EMR data to administrative sources in southern Alberta is currently underway and results of the probabilistic and deterministic linkage methods will be reported.

Throughout the project, participating CPCSSN providers will also receive feedback reports about their own EMR data quality and hypertension outcomes specific to their own patient panel, which may assist with future clinical practice improvement initiatives.

Conclusion: The data quality assessment and processing could inform methods for improving primary care EMR data quality when used for surveillance, research and practice improvement. The context could be modified for other chronic diseases. This work will also provide insight into the usefulness of a linked EMR-administrative database for hypertension surveillance.

All Authors: Stephanie Garies, University of Calgary; Hude Quan, University of Calgary; Tyler Williamson, University of Calgary; Kerry McBrien, University of Calgary; Neil Drummond, University of Alberta ; Donna Manca, University of Alberta

ID: 261
Author: Alain Gauthier
Title: Using an integrated knowledge translation approach to develop a multi-site RCT protocol: The Access to Resources in the Community (ARC) study
Type of Abstract: Poster

Objectives: Our objective is to describe the integrated knowledge translation strategy used to inform the development of a complex intervention study. The aim of the study is to assess the impact of a non-clinical navigator integrated in primary care practices, on access to community resources (CR) for patients with social complexities.

Approach: Integrated knowledge translation is a collaborative approach emphasizing meaningful partnership with key stakeholders (including patients and the public) throughout all phases of the research process. Grounded in the knowledge to action framework a comprehensive multi-site randomized control trial was developed using the engagement paradigm. Specifically, the study protocol was developed via formal consultations with patients, family members, providers (including multicultural health navigators) and decision-makers. We also included feedback from a feasibility study conducted in four primary care practices in the Ottawa region.

Results: The collaborative engagement of these stakeholders has resulted in the design of a study protocol reflecting the real world of primary care practices, thereby increasing the likelihood for implementation and long term sustainability. This process resulted in the development of user-friendly recruitment tools (e.g., animated video about the benefits of available CR), training material (e.g., content for Patient Navigator education program), and information for PCPs (e.g. , orientation session about available CR; animated video outlining the role of PCPs in the process for referrals to CR).This also resulted in the design of a standardized referral form for directing patients to CRs and the development of meaningful data collection tools (e.g., patient and provider surveys and interview guides).

Conclusion: Through the integrated knowledge translation strategy, the research team adapted study activities to address emerging patient needs, consideration for local context and vulnerable populations-such as Francophones. As a result, the study protocol developed through regular stakeholder consultations is relevant, of interest to our knowledge-users and will yield more meaningful results.

All Authors: Alain Gauthier, ; Darene Toal-Sullivan , Bruyère Research Institute ; Andrea Perna, Bruyère Research Institute ; François Chiocchio, Professor, Organisational Behaviour and Human Resource Management; Justin Presseau, Ottawa Hospital Research Institute;

ID: 23
Author: Sydney George
Title: Did Cervical Cancer Screening Among Low-income Black and Hispanic Women in the United States Differ after the Passage of the Affordable Care Act (ACA)?
Type of Abstract: Poster

Objectives: Examine whether the introduction of the ACA led to increases in cervical cancer screening among low-income Black and Hispanic American women.

Approach: Low-income Black and Hispanic women are faced with both financial and racial barriers playing a pressing role in cervical cancer screening accessibility. A cross-sectional secondary data analysis will be structured as an interrupted time series design, utilizing datasets from the Behavioural Risk Factor Surveillance System Survey, from 2006-2016, to examine whether cervical cancer screening trends differ after the introduction of the ACA. Segmented regression will be used for data analysis controlling for factors such as income, geographical region, education, obesity, and the presence of health insurance.

Results: Anticipated results are that the implementation of the ACA would produce an increasing trend of low income Black and Hispanic women who have ever received a pap-test, and an increase of women receiving pap-tests within the ACS recommended time frame.

Conclusion: This is an on-going study for an Undergraduate Honours Thesis with completion in April 2018.

All Authors: Sydney George, University of Waterloo

ID: 24
Author: Sydney George
Title: Comparing AMSTAR and ROBIS in quality assessments of systematic reviews for drug treatments for Alzheimer's Disease.
Type of Abstract: Poster

Objectives: The methodological quality of systematic reviews is important, as policy decisions and current evidence for medical interventions should be based on high-quality reviews. The study aim was to identify all systematic reviews that evaluate the following AD medications: Donepezil, Rivastigmine, Galantamine, and Memantine. Afterwards, each systematic review was rated using

Approach: The electronic databases EMBASE, PubMed, Medline, and Cochrane Library were searched using multiple search terms. Articles included were systematic reviews of randomized controlled trials for Donepezil, Rivastigmine, Memantine or Galantamine medications in AD patients.

Results: 35 studies were identified that matched inclusion criteria. For the AMSTAR Scores (median = 0.81, 25th percentile = 0.63, 75th percentile = 0.83, IQR = 0.20). and ROBIS Scores, (median = 0.74, 25th percentile = 0.66, 75th percentile = 0.81, IQR= 0.15), the variance in index scores were similar, indicating a similarity in methodological quality for both assessment tools. The correlation coefficient was 0.90, indicating a strong positive linear relationship and consistency between AMSTAR and ROBIS high and low scores.

Conclusion: The greater subjectivity and length of the ROBIS checklist required an assessor to spend more time answering questions. The variance index scores between AMSTAR and ROBIS didn't differ substantially. AMSTAR and ROBIS yielded similar quality assessments of systematic reviews.

All Authors: Sydney George, University of Waterloo

ID: 559
Author: Mr. Frederic Gilbert
Title: Towards learning healthcare systems: The direct and indirect contribution of knowledge organizations to reflexivity and change
Type of Abstract: Poster

Objectives: Knowledge organizations have been established to support policy formulation and management of healthcare systems. These organizations were tasked to report on healthcare performance and suggest improvements. Assessing the main functions of knowledge and how they operate within broader healthcare systems to enhance reflexivity and learning remains to be assessed.

Approach: We conducted a multiple comparative case study examining two Canadian provinces and two Australian states. The analysis was based on a desktop review of knowledge organizations within these four contexts. First, knowledge organizations' functions were documented through their official mandates and then characterized using the six types of learning healthcare systems developed by Foley et al. (2017). Second, to better understand how knowledge operate, we identified from their main activities and productions the levers for change that they employ using a framework from Levesque et al. (2017), which identifies eight types of levers.

Results: Results show that the functions achieved by knowledge organizations cover a large spectrum ranging from surveillance and performance reporting to supporting professional development and innovative research. Our results also exemplify that levers for change are utilized by knowledge organizations directly to favor the generation and use of knowledge on the one hand, and on the other, to favor change indirectly through generation of knowledge and usage by other entities such as healthcare researchers, professional groups and decision-makers acting outside of these knowledge organizations. Knowledge organizations functions' are often complemented by other organizations, such as Ministries, Universities or Professional Organizations. Our results shed light on the complex cohabitation of these different pathways leading to reflexivity and change.

Conclusion: To our knowledge, this study is the first comparative multiple case study mapping the functions achieved and levers of change utilized by different configurations of knowledge organizations. Our results provide the basis to further investigate the actual processes through which knowledge organizations contribute to health system performance and improvements.

All Authors: Frederic Gilbert, Université du Québec à Montréal; Jean-Frederic Levesque, Bureau of Health Information of New South Wales

ID: 375
Author: Ms. Ashlinder Gill
Title: Homecare Intensity at the End-of-Life: Measuring Access and Outcomes in Ontario Decedents
Type of Abstract: Poster

Objectives: To ensure equitable access for end-of-life (EOL) home care, it is imperative to understand current home care delivery and utilization for policy implications. The purpose of this investigation is to describe home care delivery in Ontario, and its impact on client outcomes.

Approach: A retrospective cohort study of Ontario decedents was conducted using population-level administrative data bases. Deaths between April 1, 2011 and March 31, 2015 were included in the study cohort. Hours of nursing, nurse practitioner, personal support worker (PSW), and allied health visits (categorized as other) were compared from death until the last 3 months of life. Utilization was compared across home care service levels of EOL, Long-Stay, Short-Stay and Other as per the Local Health Integrated Network (LHIN). To contrast utilization, home care use was measured across client demographics, and outcomes, such as acute hospital days.

Results: A total of 66 025 decedents received an EOL service in the last 3 months of life. EOL home care clients were slightly younger than Long-stay clients, and had a greater proportion of cancer diagnoses (54.8%). Long-stay clients had greater chronic conditions, and acute care place of death (60.1%). Home care increased closer to death for all home care clients. Preliminary results suggest decedents with EOL service level received greater intensity of services, especially nursing and PSW visits. Long-stay clients had greater hospital days and emergency department visits, and less intensity of home care compared to EOL decedents.

Conclusion: Delivery of EOL homecare offers more intense service delivery, and factors which enable such care should be better understood. Long-Stay clients had greater acute care use, and less home care, as an opportunity exists to either extend EOL services, or better effectively deliver home care to everyone in need.

All Authors: Ashlinder Gill, IHPME, University of Toronto; Suman Budhwani, Women's College Hospital Institute for Health System Solutions and Virtual Care; Sarah Spruin, ICES UOttawa; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute;

ID: 380
Author: Ms. Ashlinder Gill
Title: "I think he felt too vulnerable at home…" A Qualitative Study Exploring the Impact of Functional Limitations on Accessing Community-Based Primary Care for Older Adults
Type of Abstract: Poster

Objectives: The purpose of this investigation was to explore how physical and cognitive limitations of older adults impacts their ability to access community-based primary care (CBPC).

Approach: A case study analysis of six CBPC teams was conducted in New Zealand and Canada. Clients and unpaid caregivers were interviewed about their health and social needs, and experience with CBPC. Eligible clients were adults greater than age 50, and managing multiple chronic conditions. Eligible caregivers were unpaid caregivers who participated in a client's healthcare. Interviews were transcribed verbatim, and coded with a qualitative description approach. Identified themes about functional limitations, and unmet needs were reviewed and discussed.

Results: Older adults experienced both physical and cognitive limitations, including poor mobility, and memory loss. Mobility aids were not always feasible to use at home, due to narrow layouts and stairways, resulting in clients feeling unsafe, and this, at times, would limit them to their home. Coordinating home renovations to accommodate limitations was unrealistic due to financial strain. Navigating public spaces was challenging, due to busy crowds, uneven surfaces, and long distances. Public transportation was often unreliable and not accommodating for client limitations, further complicating the ability to seek care. From these unmet needs, clients and caregivers experienced psychosocial distress, and social isolation from limited independence. Crisis situations arose due to poor accessibility, and not having the appropriate supports in place.

Conclusion: Models of CBPC need to consider client barriers to accessing care in order to improve their experience and outcomes. Integrating health and social care to facilitate access, and accommodate for the client's disability requires the bridging of health and 'non-health care' services such as transportation and home adaptations.

All Authors: Ashlinder Gill, IHPME, University of Toronto; Kerry Kuluski, Sinai Health System; Allie Peckham, Arizona State University; Jasleen Arneja, University of Toronto; John Parsons, University of Auckland; Nicolette Sheridan, University of Auckland; Ann McKillo

Title: The Importance of Developing and Maintaining a Strong Foundation for Successful Patient Engagement
Type of Abstract: Poster

Objectives: We used patient engagement to develop interventions to improve patient satisfaction and experience with total knee arthroplasty (TKA) surgery, the most common joint replacement surgery in Canada. Patients' post-surgery dissatisfaction rates are as high as 20%, yet we have not systematically studied interventions to improve the TKA patient experience.

Approach: We recruited 15 former TKA patients (the "Patient Partners Group;" PPG) from earlier research and a clinical registry. We purposefully recruited patients of varying age, genders, ethnicities, and TKA experiences. Various combinations of research team members met multiple times with the PPG to consider interventions suggested by previous research and to design new intervention research for improving patient experience and satisfaction after TKA. We reflected on our experience with these meetings to provide suggestions for effective patient engagement.

Results: Although we developed our plans for PPG meetings following standard patient engagement guidelines, we underestimated the time needed for developing a foundation for co-building activities. Welcoming and using constructive criticism to refine our work and approach allowed for quick and essential course correction. Subsequently allocating significant time for getting to know each other and to ensure full learning from all was key to success. Other essential factors to provide support for co-building activities included adding observer note-takers to group processes and allocating significant space and time for patients to share their perspectives at every meeting.

Conclusion: Effective patient engagement not only relies on the CIHR guidelines of operating with respect and inclusiveness, providing support, and engaging in co-building. Effective patient engagement requires significant time and energy for developing and maintaining the team foundation, including being open to constructive criticism from all and quickly learning from missteps.

All Authors: Laurie Goldsmith, Simon Fraser University; Nitya Suryaprakash, Centre for Clinical Epidemiology and Evaluation

ID: 522
Author: Dr. Lauren E. Griffith
Title: The Impact of the Data Source Used to Assess Multimorbidity on Associations with Health Service Utilization: A Comparison of Self-Report and Administrative Data
Type of Abstract: Poster

Objectives: Recently a few papers have examined agreement between administrative data and self-report on multimorbidity prevalence. However, no studies to our knowledge have examined the impact on health service utilization (HSU) estimates. We used Ontario population-based data to compare the relationship between multimorbidity and different types of HSU by data source.

Approach: Data on people 45+ from four Canadian Community Health Survey (CCHS) cycles were linked with provincial administrative databases (n=71,317). Multimorbidity was based on 10 chronic conditions (CCs) identified using algorithms for administrative databases and self-reported clinical diagnosis from CCHS. We examined the association between number of CCs and four HSU types: general practitioner and specialist visits, hospitalizations, and emergency department visits. Logistic regression was used to model any HSU and Poisson regression was used to model frequency of HSU. We compared the magnitude of odds ratios (ORs) and incident rate ratios (IRRs) for the data sources by number of CCs.

Results: The average number of chronic conditions was higher using administrative data (1.87) compared to self-report (1.64). For all services, the proportion and frequency of service use increased with the number of CCs for both data sources. The differences in ORs between self-report and administrative data increased with the number of CCs for all services. While IRRs increased too, differences were smaller. For example, in specialist visits the OR for 3+ CCs using self-report was 8.31 and the OR using administrative data was 12.72; the IRR for 3+ CCs using self-report was 3.10.compared to 3.61. The OR vs IRR gap was more pronounced for general practitioner and specialist visits in comparison to hospitalizations and emergency department visits, perhaps due to higher volumes in the former.

Conclusion: Although prevalence estimates between self-report and administrative data differ, the impact on the relationship between multimorbidity and HSU depends on type of service and how service use is modelled. Next steps include exploring other factors such as level of agreement between data sources (e.g., number, condition type) on observed patterns.

All Authors: Lauren E. Griffith, McMaster University; Andrea Gruneir, University of Alberta; Kathryn A. Fisher, School of Nursing; Dilzayn Panjwani, Better Access and Care for Complex Needs (BeACCoN) Network, Women's College Hospital; Richard Perez, ICES McMaster; Lin

ID: 572
Author: Ms. Jennifer Gutberg
Title: Exploring the Role of Distributed Leadership and Middle Management in Fostering Patient Safety Culture
Type of Abstract: Poster

Objectives: Our research proposes a novel exploration of leadership in efforts to improve patient safety culture (PSC). We specifically propose that distributed leadership may be influential in facilitating PSC and further suggest that middle managers play a critical role in fostering distributed leadership at both the unit and organizational levels.

Approach: In light of ongoing challenges to improving patient safety in Canada, we emphasize the value of distributed leadership in creating organizational culture change. Distributed leadership emphasizes dynamic interactions and social processes that exist at multiple organizational levels, and can foster shared ownership and responsibility. Through an in-depth exploration of the literature, we bridge this concept with that of middle managers, two relatively under-explored areas in healthcare as they relate to PSC and organizational culture change.

Results: Middle managers are likely to play a key role in fostering distributed leadership towards improving PSC. Improvement initiatives in healthcare were found to be most effective when leadership was distributed across all levels of the organization and leveraged the unique role of middle managers to enact DL at the frontlines. However, in spite of a growing literature on leadership in improving healthcare organizations, the challenge remains in parsing out which leadership approaches are appropriate, when, and for which contexts and outcomes. Moreover, research suggests that the implementation of distributed leadership alone does not ensure success; it must be approached in iterative ways that consider and involve both formal and informal leaders.

Conclusion: Our review highlights a significant gap regarding distributed leadership and middle management in fostering PSC. These findings require us to consider the specific mechanisms that allow middle managers to influence culture change. In order to address these gaps, we suggest a qualitative approach for empirically examining this relationship.

All Authors: Jennifer Gutberg, Institute of Health Policy, Management, and Evaluation, University of Toronto; Ross Baker, University of Toronto

ID: 399
Author: Mrs. Jeannie Haggerty
Title: Back to the drawing board: using rapid cycle evaluation to collaboratively re-design an organizational intervention to enhance access to primary care for socially vulnerable populations
Type of Abstract: Poster

Objectives: To describe the collaborative design of an organizational intervention to increase access to primary health care for socially vulnerable populations. A core group of managers and clinician leaders from two health networks collaborated with researchers to identify the local access needs and co-design an intervention using existing resources.

Approach: Persons from high deprivation neighbourhoods were frequent users of emergency departments and were least likely to be accepted and retained as new patients by family physicians from Quebec's centralized waiting list for family physicians. The unfunded intervention was designed to reach out newly-assigned patients prior to their first physician visit, to assess social vulnerability and access needs and prepare for their visit(s) and visit ensure a good connection with the physician. The implementation was evaluated as it rolled out through biweekly after-action-review visits. Results informed site-specific adjustments; results with major design implications were discussed at regular core group meetings.

Results: The initial intervention used social workers in primary care clinics. Real-time evaluation revealed many competing demands and limited capacity to contact new patients during business hours; few patients needing intensive assessment and visit preparation. Only 16/50 eligible patients were contacted successfully; only 2 needed the intensive intervention. The intervention was stopped and redesigned. Now, lay volunteers target patients from high deprivation neighbourhoods and phone even outside of business hours. They assess vulnerability and orient patients to the clinic. Using a stepped approach, patients with greater needs are followed after the visit; those with greatest or ongoing need are referred to the social worker. Ongoing evaluation allows site-specific adjustment. More patients receive the service and the light-touch intervention is appreciated by participating clinics.

Conclusion: Rapid cycle evaluation permits rapid adjustment of an intervention. A solid researcher-manager partnership built around shared commitment to improving access for vulnerable populations allowed for radical redesign of the intervention. Sustainability challenges will still require stakeholder partnerships and ongoing evaluation if the intervention is spread to other jurisdictions.

All Authors: Jeannie Haggerty, McGill University; Mélanie Ann Smithman, Université de Sherbrooke; Mylaine Breton, Universite de Sherbrooke; Christine Beaulieu, St.Mary's Research Centre - McGill University; Ekaterina (Katya) Loban, ; Cathie Scott, Alberta Centre for R

ID: 199
Author: Dr. Mohammad Hajizadeh
Title: Does unwanted childbearing lead to adverse health care utilization and health outcomes for mother and child? Evidence from 48 developing countries
Type of Abstract: Poster

Objectives: Using a unique dataset pooled from 48 Demographic and Health Surveys (DHS) and country-level indicators from the World Bank's World Development Indicators and Global Development Finance (WDI and GDF) dataset (n=494,778), we analyzed the effect of unwanted childbearing on maternal and child health care utilization, and child health outcomes.

Approach: We used logistic regression models that controlled for birth characteristics, household-level covariates, country-level covariates and country fixed effects to estimate the effect of unwanted childbearing on the receipt of antenatal care use, supervised delivery, childhood vaccination and three indicators of child health viz. stunting (height for age), underweight (weight for age) and wasting (weight for height).

Results: Our results suggested that unwanted children have the lower probability of receiving four or more antenatal care (ANC 4+) during the pregnancy by 3.6% (95% confidence interval [CI] = 1.9% to 5.4%). However, we did not observe significant differences in the utilization of supervised delivery, childhood vaccination uptake and child health measures, as measured by stunting, underweight, and wasting, between unwanted and wanted children.

Conclusion: Birth characteristics, household-level determinates and country-level characteristics seem to be more closely related to maternal and child health care utilization as well as child health outcomes than wantedness of children in developing countries.

All Authors: Mohammad Hajizadeh, Dalhousie University; Son Nghiem, Australian Research Centre for Health Services Innovation - Queensland University of Technology

ID: 135
Author: Ms. Nour Hammami
Title: Chronic disease risk behaviour clusters and their associations with overweight and obesity among a large sample of youth in the COMPASS study: gender-specific, repeated cross-sectional analyses.
Type of Abstract: Poster

Objectives: This study (i) assessed youth's adherence to public health guidelines for recreational screen time, physical activity, fruit and vegetable (FV) intake, current smoking, binge drinking and marijuana use, (ii) examined latent classes of the chronic disease risk factors (CDRF) mentioned, and (iii) investigated associations with overweight and obesity.

Approach: A repeated, cross-sectional analysis was conducted for years 2013- 2015 of the COMPASS (2013-2021) Study. Observations from over 23,000 youth in grades 9-12 from Ontario, Canada were used to assess adherence to public health guidelines for the CDRF. Latent Class Analysis was used to determine latent classes of the CDRF. Multi-level regression models were used to assess associations between the latent classes and weight status. For comparative purposes, these models considered stratification by and adjustment for gender in order to assess the role that gender plays in evaluating the risk of overweight and obesity in CDRF research.

Results: Youth were highly incompliant with sedentary and FV intake guidelines (>94% did not meet guidelines). Three latent classes were identified for this study's youth: active experimenters (ACE), inactive clean youth (INC) and inactive substance users (INSU).

Regression findings from the model adjusted for gender suggested that INSU are at higher odds of obesity (Odds Ratio (OR)=1.27; 95% Confidence Intervals (CI)= 1.15-1.40). There were differences across the genders, as the stratified model suggested that INC youth are at a higher risk of overweight or obesity, only among females (OR=1.54; CI= 1.34-1.78).

Out of the three years we used, 2014 did not have consistent results with 2013 and 2015. There is a need for repeated cross-sectional designs to make conclusions that are based on replicable findings.

Conclusion: Population wide interventions targeting sedentary behaviours and fruit and vegetable intake are strongly recommended, given the low adherence to public health guidelines. Targeted interventions will be beneficial to certain subgroups of youth (i.e., substance users) since they are more prone to being overweight or obese.

All Authors: Nour Hammami, University of Waterloo, School of Public Health and Health Systems; Ashok Chaurasia, University of Waterloo; Philip Bigelow, University of Waterloo; Scott Leatherdale, University of Waterloo, School of Public Health and Health Systems

ID: 187
Author: Ms. Nour Hammami
Title: Prediction of BMI based on latent classes of chronic disease risk factor is only evident among male youth: gender stratified longitudinal analyses among a large sample of youth in the COMPASS study.
Type of Abstract: Poster

Objectives: This study (i) investigated changes in weight status after one year, and (ii) assessed the extent to which latent classes of chronic disease risk factors (CDRF) at baseline are informative about weight status, one year later, among youth in grades 10 to 12 across 2013-2015, taking into consideration gender differences.

Approach: A longitudinal analysis was conducted using panel data for years 2013- 2015 of the COMPASS Study. Kappa test statistics were conducted to assess the degree to which youth changed weight status categories from one year to the next.

Latent class analysis determined latent classes of the CDRF for each year 2013-2015.

Multi-level, mixed-effects regression models assessed associations between weight status and latent classes of previous year, using weight as a continuous and, separately, as a binary outcome. For comparative purposes, the aforementioned mixed effects models considered stratified-by and adjusted-for gender to assess gender differences in CDRFs and weight status.

Results: A majority of youth (84.7%) tended to remain in the same weight status (via Body Mass Index, BMI) category at the following year, with 'substantial' agreement.

The regression analysis indicated unanimously that 'inactive' males have a higher BMI in later years [by 0.47 units (95% Confidence Intervals (CI)= 0.19-0.76) for 'inactive substance-users' (INSU) and 0.28 units (CI=0.06-0.49) for 'inactive clean youth'. When BMI was used as a binary measure, male INSU had a 75% higher odds of being overweight or obese one year later, compared to their counterparts. Significant findings were found for the model that adjusted for gender; although no associations were found between latent classes and weight status for females in the stratified model, thus indicating that male youth drove this association.

Conclusion: Future research should use stratified analyses and include substance use in BMI research. Our findings indicate that male youth who are inactive have an 75% and 81% risk of moving into a high BMI category, depending on whether they engage, or do not engage in substance use, respectively.

All Authors: Nour Hammami, University of Waterloo, School of Public Health and Health Systems; Ashok Chaurasia, University of Waterloo; Philip Bigelow, University of Waterloo; Scott Leatherdale, University of Waterloo, School of Public Health and Health Systems

ID: 91
Author: Dr. Stephanie Hastings
Title: Distribution of Registered Nurses in Alberta
Type of Abstract: Poster

Objectives: Upcoming changes to regulations for Registered Nurses (RNs) in Alberta may have significant impact on how they are deployed and utilized across the province. Given this, we sought to understand how RNs are currently staffed in different settings to facilitate future evaluation of the impact of these regulatory changes.

Approach: Alberta's Rural and Remote Emergency Departments (RREDs), Mental Health (MH) units, and Home Care (HC) programs were selected for examination. We used staff and patient data from several administrative data systems. We did descriptive analyses of the data to examine the staffing mix of RNs on multi-disciplinary teams around the province based on geographical zones. We also examined the distribution of RNs in relation to relevant measures of patient volume (i.e., patient days) and workload (i.e. resource intensity weight, case mix index, and Canadian Triage and Acuity Scale scores) as a proxy for acuity.

Results: In RREDs, RNs comprised the bulk of the workforce as a whole (61%) but their representation varied across the province. The North Zone had the lowest percentage (50%) of RNs and Central Zone had the highest (78%). There was also some variability in terms of how many RNs were available relative to the workload. In MH units, RNs made up only 27% of staff province-wide. Allied Health professionals (e.g., counselors, mental health aides) were the most commonly staffed MH providers at just over 30%. There was substantial variability in staffing relative to patient days and patient acuity in MH units. We found more consistency in HC settings, where RNs made up 87% of the workforce overall and at least 80% across the zones.

Conclusion: The provincial distribution variation of RNs is frequently attributed to the history of regional authorities in Alberta. However, there is little research as to the impact of this variety of professions on patient care and safety. New regulations for RNs may contribute to the changing health landscape in Alberta.

All Authors: Stephanie Hastings, Alberta Health Services; Hue Quan, Alberta Health Services; Ameera Memon, Alberta Health Services; Jennifer Dotchin, College & Association of Registered Nurses of Alberta

ID: 509
Author: Dr. Kristine Hearld
Title: Driving Health Behaviour: The roles of personal health information use and patient attutudes towards health
Type of Abstract: Poster

Objectives: Patient attitudes and beliefs have always played a central role in health care, but the growing interest in consumerism and patient-centered care has reinvigorated interest in understanding whether and how they contribute to health and health seeking behaviours, and consequently, ways to foster more positive attitudes and beliefs among patients.

Approach: Our study uses data from the 2017 Health Information National Trends Survey (HINTS), a US nationally-representative cross-sectional study of how people access and use health information technology. Analytic strategy entails employing a multivariable path analysis to investigate the direct and indirect relationships between personal health information and positive, engaged women's health behaviours in the form of preventative cancer screenings (mammograms and pap test). We also examine two potential attitudinal mechanisms by which personal use of health information use may promote women's health detection behaviours through examining the mediational role of patient attitudes and self-perceived health status.

Results: We found that personal use of health information worked directly on health detection behaviours for intermediate levels of health information only. One explanation for this finding is that screenings, which are facilitated by the health care system, may reflect a triangulation of the application of medical guidelines within health care organizations, personal use of health information, and individual characteristics. We also examined the role of two patient attitudes as potential mediators of the relationship between personal use of health information and health detection behaviours. Our findings suggest that patient attitudes may only act as a mediator at low levels of information use and when both confidence in one's ability to care for him/herself and self-assessed health status are considered simultaneously.

Conclusion: In recent years, both the volume and personal use of health information have grown, and the assumption is that greater health information is an underpinning of personal engagement with one's healthcare. These findings suggest care providers need to tailor information exchange with patients to ensure efficacious health information utilization.

All Authors: Kristine Hearld, University of Alabama at Birmingham; Deirdre McCaughey, Cumming School of Medicine, University of Calgary; Larry Hearld, School of Health Professions; University of Alabama at Birmingham; Henna Budhwani, University of Alabama at Birmingh

ID: 180
Author: Mr. Mehdi Hegagi
Title: Prognosis of Pancreatic Cancer Patients Receiving Home Care
Type of Abstract: Poster

Objectives: This study aims to use linked health administrative databases at the Institute for Clinical and Evaluative Sciences (ICES) to describe home care utilization by patients with pancreatic cancer as well as determine predictors for survival of pancreatic cancer patients that receive home care.

Approach: The Ontario Cancer Registry (OCR), is used to identify index cases of pancreatic cancer diagnosed between April 1st, 2010 and March 31st, 2016. The OCR is also used to capture basic patient demographics and cancer characteristics. Patients that received home care are identified using the Home Care Database (HCD). The Resident Assessment Instrument-Home Care (RAI-HC) will be used to capture a comprehensive list of patient characteristics including marital status, activities of daily living, cognitive performance score, depression rating and other characteristics. The Registered Persons Database (RPDB) will be used to determine date of death.

Results: Between April 1st, 2010 and March 31st, 2016, there were 10040 incident cases of pancreatic cancer in Ontario. Of these pancreatic cancer patients, 5397 (53.8%) received home care. Of these home care patients, 978 (18.1%) received a RAI-HC assessment. Further description of this cohort, including survival analysis, is forthcoming and will be available on the poster presentation.

Conclusion: Preliminary results indicate a significant portion of patients with pancreatic cancer are directed to home care. Given this large proportion, it is important to describe the home care utilization as well as conduct survival analysis to determine predictors for survival.

All Authors: Mehdi Hegagi, Ottawa Hospital Research Institute; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Paul James, University Health Network; Amy Hsu, Bruyère Research Institute; Robert Talarico, ICES uOttawa

ID: 513
Author: Dr. Deirdre Hennessy
Title: Using linked population-based data to investigate acute care hospitalization for sepsis in Canada: a retrospective cohort study
Type of Abstract: Poster

Objectives: In Canada, sepsis is a considerable population health and health system burden. Population-based epidemiological surveillance of sepsis is difficult because of its heterogeneity. Our objective was to use linked population-based data to identify and describe patients admitted to Canadian hospitals for sepsis between 2006/06 and 2008/09.

Approach: This study was a retrospective linked cohort design utilizing the 2006 Canadian Census (the most recent Census data available for linkage) linked to the Discharge Abstract Data (DAD) from 2006/07 to 2008/09. Using the Canadian Institute for Health Research (CIHI) administrative data definition we identified patients admitted to hospital with sepsis. Age standardized hospital admission rates for sepsis were calculated per 100,000 population. Multivariate modelling was used to examine the relationship between Census characteristics and hospitalization for sepsis, as well as hospital mortality among sepsis patients.

Results: Ten thousand four hundred and forty two respondents to the 2006 long-form Canadian Census were hospitalized with sepsis between 2006/07-2008/2009. These respondents represented a weighted count of approximately 49,000 Canadians from all provinces and territories, excluding Quebec. The average annual age-standardized rate of sepsis hospitalization was 96 cases/ 100,000, of these 37 cases/100,000 population were classified as severe sepsis. In age-specific hospital admission models, age, sex, never being married, self-reporting as a visible minority, having difficulties with activities of daily living and not being in the labor force were all associated with an increased odds of hospital admission with sepsis. With regards to hospital mortality among sepsis patients, age, lower income and lower education were associated with an increased hazard of in-hospital death.

Conclusion: Linked population-based data affords a unique opportunity to examine the socio-demographic characteristics of patients admitted to hospital with sepsis. Such data could be helpful for epidemiological surveillance and can be used in combination with evolving administrative data definitions of sepsis.

All Authors: Deirdre Hennessy, Statistics Canada; Andrea Soo, Alberta Health Services; Daniel Niven, ; Rachel Jolley, University of Calgary ; Juan Posadas-Calleja, Alberta Health Services; Tom Stelfox, University of Calgary; Christopher J Doig, Alberta Health Services

ID: 30
Author: Dr. Megan Highet
Title: Research into Action: Applying a Systems Thinking Approach for Academic Research that Impacts Health Policy.
Type of Abstract: Poster

Objectives: Academic researchers are disappointed when their published work is widely 'accessible', yet policymakers are not consulting their research, while policymakers often find research proposals and academic studies to be misaligned to current context or priorities. Informed by cross-sectoral perspectives, we offer a practical approach for bridging this disconnect.

Approach: A qualitative approach is employed to document the knowledge and experience of individuals who engage with health system research in both academic and policy settings. We explore the significance of the 'perception' of interdisciplinary collaboration within academic contexts and across institutional sectors. Examples of successful outcomes and missed opportunities will be drawn upon, utilizing a systems thinking perspective to inform our analysis. Our discussion focuses upon strategies that both academic researchers and policymakers can employ to enhance the potential for successful collaboration.

Results: Informants stress the importance of meaningful engagement and adopting an iterative approach that enables feedback to be incorporated throughout the research cycle. While the advice to 'talk early and often' is seemingly straightforward, this often proves to be a difficult course to navigate without prior knowledge or experience. In addition, collaboration involves working jointly toward a common goal. Since the strategy employed for each project will necessarily differ, little consensus can pre-exist regarding the specific timing and precise steps required to make the right connections at the right time. Often, collaboration is initiated too late to fine-tune research questions and to develop the kinds of relationships among partners that are vital to ensuring alignment between the aims of academic research and strategic health policy priorities.

Conclusion: Key learnings are synthesized to inform recommendations for bridging the span between academic-based research and policy development in health system environments. Our suggestions are intended to support an approach that can assist academic researchers and policymakers in engagement that will increase the likelihood of timely and impactful outcomes.

All Authors: Megan Highet, University of Alberta and Alberta Health; Shannon Berg, Alberta Health

ID: 558
Author: Ms. Julia Ho
Title: Care planning and coordinated care plans: understanding the Health Links approach to caring for people with complex health and social needs
Type of Abstract: Poster

Objectives: We aimed to explore the extent to which coordinated care plans (CCPs) stimulated care planning in Ontario's 'Health Links', an initiative to improve coordination for high-cost users. CCPs are an important tool to understand as they are the Ministry of Health and Long-Term Care's primary performance metric for Health Links.

Approach: We examined the experiences of Health Link administrators and front-line providers on care planning and CCPs via a secondary analysis of qualitative data. We analyzed semi-structured interviews conducted in 2016-2017 with 37 organizational leaders and 17 care providers from six Health Links across two Local Health Integration Networks. Interview participants were recruited from health and social service organizations that were partners within a Health Link. Using a two-step approach: 1) deductive analysis based on Burt et al.'s (2014) model of care planning—a model that identifies mediators and moderators of care planning; 2) inductive analysis to capture emerging themes.

Results: Our results confirmed many of the mediators and moderators presented in Burt et al's (2014) model of care planning within the Health Links context of inter-sectoral coordination. Our findings also identified emerging themes that extend this conceptual model of care planning for long-term conditions and focus it on coordinated care planning for patients with complex health and social needs. We identified mediators of care planning including: information sharing, case conferencing, provider role specification, the timing and intensity of care coordination, and access to and availability of services. The moderators of care planning in our data include: clinical information systems, use of care plan templates (authorship, timeliness, privacy, appropriateness, security, documentation, and performance measurement) and healthcare team climate.

Conclusion: Our study revealed important moderators and mediators to care planning, many of which are not integrated into CCPs nor are considered when evaluating Health Links. Without consideration of these factors, Health Links care plans will only provide real value if they result in improved coordinated care planning.

All Authors: Julia Ho, University of Toronto; Agnes Grudniewicz, Telfer School of Management, University of Ottawa; Jennifer Gutberg, Institute of Health Policy, Management, and Evaluation, University of Toronto; Reham Abdelhalim, Institute of Health Policy, Managemen

ID: 288
Author: Dr. Marilyn Hodgins
Title: COLLABORATIVE LONGITUDINAL INVESTIGATION OF TRANSITION FROM HOSPITAL TO HOME: A FEASIBILITY STUDY
Type of Abstract: Poster

Objectives: To establish the feasibility of a collaborative, longitudinal, mixed-methods investigation of patient and family caregiver experiences during hospital discharge and the early post-discharge period, an examination of the protocol for participant recruitment and retention and for the collection and analysis of the quantitative data was conducted.

Approach: Participant recruitment was conducted on inpatient medical and surgical units. Demographic information plus measures of readmission risk and perceived readiness for discharge were collected prior to discharge. Post-discharge coping and the planned and unplanned use of healthcare and supportive services (unpaid, paid, professional) were measured on the first day post-discharge, end of week 1, and during weeks 3 and 5 through telephone/online surveys. During final interview, information was collected on participants' perceptions of clarity, comprehensiveness, and relevance of survey items. Descriptive and correlational analyses were conducted to examine internal consistency of measurement instruments and identify patterns in coping over time.

Results: Forty-five participants were recruited with 93% retention (n = 42). Participants ranged in age from 38 to 98 years (Mdn = 69), 55% were female, 50% lived in rural area, 41% were planned admissions, and 83% were surgical. Measurement instruments demonstrated acceptable reliability (alpha >.80). Readiness for Discharge scores indicate many viewed discharge as stressful. Considerable variability was observed in participants' scores for Post-Discharge Coping and not all exhibited improvement over time. Three were readmitted and another two had an unplanned emergency department visit (11.9% unplanned use acute care services). Four patterns of post-discharge coping were identified and labelled: Steady Improvement; Initial Shock; Bumpy Road; and Gradual Decline. Analysis conducted to explain observed patterns using participants' age, sex, type of admission, and adequacy of help.

Conclusion: Project reinforced our belief in value of feasibility studies. Participant recruitment was more difficult than anticipated with several potential participants opting out as feeling over-whelmed by their impending discharge. A clearer understanding of factors associated with transition success, or its failure, is required for the development of targeted interventions.

All Authors: Marilyn Hodgins, University of New Brunswick; Susan Logan, Horizon Health Network, Extra Mural Program, Saint John Area; Sarah Filiatreault, University of Manitoba; Lisa Keeping-Burke, University of New Brunswick Saint John; Nicole Moore, Dr. Everett Cha

ID: 271
Author: Mr. Mark Hofmeister
Title: Comparing International Perspectives Within a Trial-Based Economic Evaluation: the Syncope Pacing or Recording In ThE Later Years Trial
Type of Abstract: Poster

Objectives: To assess the effect of adopting three international perspectives (Canada, the United States, and the United Kingdom) on the cost-effectiveness of the implantable loop recorder (ILR) compared to empiric pacemaker (PM) insertion in patients with bifascicular block, syncope, and age greater than 50 years.

Approach: In the Syncope: Pacing or Recording In ThE Later Years (SPRITELY) trial, participants with bifascicular block, syncope, and age > 50 years were randomized to empiric PM insertion or the ILR, and followed for at least two years. Resource use and EQ-5D-3L (a utility measure) responses were collected. A convenience sample of key informants from each country were interviewed to understand clinical care and billing practices. Country-specific unit costs were then attached to observed resource use. The incremental cost effectiveness ratio (ICER) was calculated for each country. Uncertainty was explored with non-parametric bootstrapping.

Results: Compared to PM, ILR resulted in 0.023 additional QALYs over two years. With a Canadian perspective, the incremental cost of the ILR compared to the PM was CAD$3,684 (95%CI: $1,312 to $6,063) and the ICER was CAD$160,710 per additional QALY. In the United States the incremental cost of the ILR was USD$4,701 (95%CI: $2,897 to $6,560) resulting in an ICER of USD$205,114 per additional QALY. In the United Kingdom perspective, the incremental cost of the ILR was £3,546 (95%CI: £2,944 to £4,158) and the ICER was £154,694 per additional QALY. In 1,000 bootstrapped replicates of costs and QALY outcomes for each country, ILR costs exceeded PM costs in every replicate.

Conclusion: The cost of the ILR was greater than the PM regardless of perspective. Although cost differences lead to differences in the ICER, the policy implications are the same in each country. At thresholds of CAD$50,000, USD$100,000, and £30,000 per QALY, the ILR is unlikely to provide reasonable value for money.

All Authors: Mark Hofmeister, University of Calgary; Robert Sheldon, Libin Cardiovascular Institute of Alberta/University of Calgary; Eldon Spackman, University of Calgary; Satish Raj, Libin Cardiovascular Institute of Alberta; Mario Talajic, Department of Medicine, U

ID: 150
Author: Mr. Gregory Huyer
Title: Long-Term Care Placement and Mortality After Dementia Diagnosis: A Population-Based Study
Type of Abstract: Poster

Objectives: The prevalence of dementia in Canada is increasing rapidly. Dementia is a major risk factor for need of home care services, placement in a long-term care facility, and mortality. We describe the outcomes for individuals newly diagnosed with dementia, and the predictive factors for mortality within five years of diagnosis.

Approach: A population-based retrospective cohort study was conducted to examine the rates of home care initiation, long-term care (LTC) placement and death for all community-dwelling Ontarians aged 65 and over diagnosed with dementia between 2007 and 2010. Using routinely-collected administrative data, outcomes were described at 1, 3 and 5 years after dementia diagnosis. Logistic regression was used to identify predictive factors associated with mortality 5 years post-diagnosis, and Kaplan-Meier curves were used to analyze survival. A graphical tool for predicting mortality was created based on the most important risk factors.

Results: 83,919 individuals were identified with dementia during the study period. Home care services were accessed soon after diagnosis and by many individuals, while LTC placement was slower and less frequent. By the end of the 5-year follow-up period, 76% of the cohort had received home care, 39% had been placed in LTC, and 53% had died. Men were significantly more likely to die than women at all time points examined, while women were more likely to receive home care and be placed in LTC. The most common trajectory after dementia diagnosis was home care followed by LTC placement and death (25.3% of cohort). Age was the most significant predictor of death, while other key predictors included male sex, congestive heart failure, renal failure and COPD.

Conclusion: This population-based study provides a detailed analysis of the outcome trajectories following dementia diagnosis and predictive factors of mortality. This information can be used by patients, families and physicians to better anticipate disease course, and by policymakers in health systems planning in response to the increasing prevalence of dementia.

All Authors: Gregory Huyer, University of Ottawa; Sarah Spruin, ICES UOttawa; Amy Hsu, Bruyère Research Institute; Stacey Fisher, Ottawa Hospital Research Institute; Doug Manuel, Ottawa Hospital Research Institute; Peter Tanuseputro, Bruyère Research Institute & Ottaw

ID: 250
Author: Mr. Gregory Huyer
Title: Transitions of Care for People with Dementia: Predictive Factors and Health Workforce Implications
Type of Abstract: Poster

Objectives: Governments across Canada are increasing their investments in home care to support people at home longer. This study focuses on factors that predict the transition from home care to long-term care (LTC) for people with dementia, and the health workforce implications associated with expanding services to delay the transition.

Approach: A population-based retrospective cohort study was conducted to examine the transition from home care to LTC for community-dwelling Ontarians over 65 diagnosed with dementia between 2007 and 2015. Using routinely-collected administrative data, a broad range of attributes were analyzed at the first assessment for home care services following dementia diagnosis. These data were used to construct a multivariable regression model that models the time between home care initiation and institutionalization. From the model, we identified factors that allow people with dementia to remain at home for longer, with a particular emphasis on factors associated with the health workforce.

Results: The study cohort comprised 163,983 individuals diagnosed with dementia who subsequently received a RAI-HC (Resident Assessment Instrument – Home Care) assessment. The regression model demonstrated very strong calibration and discrimination (C-stat = 0.748). Predictors associated with the greatest risk of LTC placement were cognitive impairment, behavioural symptoms, functional impairment, and informal caregiver stress. Important protective factors included being married, having a live-in informal caregiver, and living in a private home. After controlling for other variables, age and sex had minimal effect on predicting risk. Data limitations precluded a full examination of health workforce implications. However, the analysis did reveal important sex differences for both care recipients and informal caregivers, as well as the importance of managing informal caregiver stress.

Conclusion: These results will assist policymakers in capacity planning and in determining what home care services should be expanded to better maintain dementia patients at home. The results are also important for individuals with dementia in helping them understand their likely disease trajectory, from which they can make better-informed care decisions.

All Authors: Gregory Huyer, University of Ottawa; Sarah Spruin, ICES UOttawa; Amy Hsu, Bruyère Research Institute; Stacey Fisher, Ottawa Hospital Research Institute; Doug Manuel, Ottawa Hospital Research Institute; Ivy Bourgeault, University of Ottawa; Peter Tanuseput

ID: 550
Author: Dr. Jongnam Hwang
Title: An examination of neighbourhood environment and unmet health care need in urban cities: Comparing Toronto, Canada and Seoul, Korea
Type of Abstract: Poster

Objectives: While unmet health care needs are caused by various factors, little is known the role of social environment on unmet health care need. This study aimed to examine a relationship between perceived neighbourhood environment and experience of unmet health care need in urban city settings comparing Toronto and Seoul.

Approach: This study used survey datasets from Neighbourhood Effects on Health and Well-being (NEHW) Study and Community Health Survey (CHS), and individuals between 25 and 64 years of age and welling in both cities were included in each analytic model, respectively. Two separate logistic models were used to examine the relationship between neighbourhood environment and unmet health care need as well as the impact of perceived neighbourhood environment on barrier-related unmet health care need in both cities.

Results: The results indicated that residents living in each city, Toronto and Seoul, experienced similar proportion of experiencing unmet health care need. In addition the results showed that low satisfaction of neighbourhood environment was associated with higher likelihood of experiencing unmet health care needs, in particular barrier-related unmet need in both Toronto and Seoul regardless of type of health care system.

Conclusion: In an urban city setting, individual's satisfaction of neighbourhood environment plays a pivotal role in the experience of unmet health care needs, suggesting a community-based policy intervention needs to be considered to improve health care accessibility.

All Authors: Jongnam Hwang, Wonkwang University; Sara Guilcher, University of Toronto; Jiwon Hong, Daegu University

ID: 338
Author: Mr. Michael Ip
Title: Using machine learning techniques to predict entry into long-term care
Type of Abstract: Poster

Objectives: Canada's senior population is at an all-time high, and is projected to continue to grow. The study aims to develop a predictive tool to assess risk of requiring long-term care (LTC) in the population by identifying factors associated with LTC entry, and creating a model using machine learning techniques.

Approach: A literature review of predictive and epidemiological studies was performed to identify candidate predictors of LTC entry. The Ontario sample of the Canadian Community Health Survey was then used to identify predictors of LTC entry, which was captured by linkage to Resident Assessment Instrument – Minimum Data Set 2.0 assessments.

Machine learning methods were used to develop a predictive algorithm using the previously identified predictors. Multiple machine learning approaches were considered to find the most reliable algorithm for the model. The quality of the predictive algorithm was evaluated using both sensitivity and specificity.

Results: The derivation cohort for the model consists of community-dwelling older adults (aged 50+ in 2001, 2003, 2005, and 2007 CCHS cycles) potentially at risk of LTC admission (n = 44,052). Preliminary data suggests that associated factors include age, sex, socioeconomic data, living arrangement, chronic conditions, limitations with activities of daily living, cognitive impairment, and physical activity level. Naïve Bayes and Support Vector Machine models are currently candidate machine learning algorithms for the model, but further analysis is ongoing to assess the viability of other supervised learning methods. After developing the model, the effect of health behaviours on LTC entry will be used to project the future need for LTC in Ontario.

Conclusion: Identifying factors that can help predict entry into LTC can be beneficial to both individuals and to inform policy. Modifiable behavioural factors can be addressed to reduce an individual's risk, and prevalence of chronic factors can predict the future need for long-term care.

All Authors: Michael Ip, Ottawa Hospital Research Institute; Amy Hsu, Bruyère Research Institute; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Doug Manuel, Ottawa Hospital Research Institute

ID: 355
Author: Ms. rayane islambouli
Title: Utilization of e-prescribing in Quebec – challenges and opportunities
Type of Abstract: Poster

Objectives: In 2013, the province of Quebec implemented an e-prescribing network allowing for the electronic transmission of prescriptions between prescribers and pharmacies in primary care across the whole province. The objective of this study is to describe the system, its utilization and the experience of users.

Approach: Longitudinal analysis of usage data between Jan 2016 and December 2017 was performed, from data obtained from the Ministry of Health. Interviews and observation sessions were conducted with early adopters on the prescriber side and the pharmacy side to compare usage patterns and experience of users with different commercial systems (2 EMR systems and 4 pharmacy management systems). Narrative literature review was conducted to describe e-prescribing models.

Results: Of all the e-prescriptions sent to the warehouse by 3 465 prescribers, 16% were retrieved electronically in pharmacies. The experience of users was very heterogeneous depending on the commercial system used. The most problematic feature was the absence of a visual representation of the original e-prescription to be able to validate what the local PMS was generating. All e-prescribing strings needed to be adjusted in the pharmacy management system before dispensing. Prescribers are still required to print out a paper copy of the prescription when sending it electronically to the central warehouse. On the receiver side, pharmacists have to wait for the paper copy. No alert was sent when a new prescription is available because the patient is free to choose his or her pharmacy

Conclusion: A minority of EMR users and pharmacists were using the e-prescribing network in Quebec at the end of 2017. The heterogeneous performance of the commercial systems suggests that in order to improve the quality and the safety of medication use with e-prescribing, further work is needed to improve the experience

All Authors: rayane islambouli, Yes; Claude Sicotte, Université de Montréal; Aude Motulsky, Université de Montréal

ID: 354
Author: Ms. Mudathira Kadu
Title: Predictors of Hospitalization in Long-Term Care Residents Living with Heart Failure in Ontario: A Retrospective Cohort Study
Type of Abstract: Poster

Objectives: Institutionalized older adults living with heart failure (HF) have a great risk of hospitalization, with growing evidence suggesting that a significant proportion could be avoidable. This study examined the clinical characteristics that predict the hospitalization of long-term care (LTC) residents living with HF, within 90 days of admission.

Approach: This was a retrospective cohort study of adults aged 65 or older who were admitted to an Ontario LTC home between January 1st, 2011 and December 31st, 2013, using data from the Resident Assessment Minimum Data Set version 2.0. To compare residents with and without HF, chi-square tests for categorical variables and t-tests for continuous measures were used. Bivariate logistic regression analyses were conducted first to identify factors for consideration in multivariate modelling. Multivariate logistic regression models using generalized estimating equations (GEE) were developed to determine predictors of hospitalization in residents with HF.

Results: Residents with HF were comparatively older, more frequently admitted from a hospital, had a significant greater number of comorbidities and functional limitations. The rate of hospitalization within 90-days of admission to LTC was 36.2%. Admission into a nursing home from a hospital was the strongest predictor of future hospitalization (OR: 8.1, CI: 7.1-9.3), followed by a score of three or greater on the Changes in Health, End-stage Signs and Symptoms scale; a measure of severe medical instability (O.R: 4.2, CI: 3.1-5.9). Residents with an elevated risk for falls were approximately twice more likely to be hospitalized within 90 days of admission.

Conclusion: These findings highlight the need for effective disease management of HF in LTC to prevent hospitalization. Furthermore, the utility of residents' clinical information holds great potential in the ongoing quality improvement of transitional care for older adults living with HF.

All Authors: Mudathira Kadu, University of Toronto- Institute of Health Policy, Management & Evaluation; George A. Heckman, University of Waterloo; Paul Stolee, University of Waterloo; Christopher Perlman, University of Waterloo

ID: 569
Author: Ms. Mudathira Kadu
Title: A Cost Utility Analysis of Using the Kidney Failure Risk Equation as a Referral Criteria to Access Multidisciplinary Care for Patients with Chronic Kidney Disease in Ontario, Canada
Type of Abstract: Poster

Objectives: The objective is to determine the cost-utility of accessing multidisciplinary care teams (MDT) for patients with chronic kidney disease, based on Ontario's newly implemented referral criteria, which uses the Kidney Failure Risk Equation (≥ 10% risk of end-stage-kidney-failure) to determine eligibility, compared to the old strategy (eGFR <33 mL/min/1.73m2).

Approach: The analysis used a two-dimensional Monte Carlo-based Markov Model to determine the cost-utility of accessing MDT based on the two criteria, from a societal perspective and over a lifetime. The simulated population (n=10 million) was derived from an actual CKD stage 3b – 5 cohort (n=1504), referred to the Sunny Brook Hospital outpatient nephrology clinic in Toronto, from January 1st, 2001-December 31st, 2008. Parameter estimates for the probability and cost of subsequent events were obtained from literature and secondary data sources. The estimated incremental cost-effectiveness ratio (ICER) was assessed against a willingness-to-pay threshold of $4167/quality adjusted life months.

Results: Results showed a favorable incremental difference of 2.86 discounted quality adjusted life months (0.24 years) from accessing MDT based on the old criteria, compared to the new strategy. The mean discounted cost of the new strategy over a patient's lifetime was $305,804 and $293,920 for the old strategy. Over 95% of the incremental cost-effectiveness ratio (ICER) values fell in the north-west quadrant of the ICER plane; outside of the willingness to pay threshold. This suggested that over a lifetime horizon, accessing multidisciplinary care using the KFRE is costlier and less effective than the former eGFR-based strategy. Results of the probabilistic sensitivity analysis point to the fact that 95% of the cost-effectiveness results were not due to uncertainty in parameter or patient level values.

Conclusion: A significant strength of this study is its potential contribution to evidence-informed decision-making over the continued use of the KFRE criteria for MDT access. However, these results are preliminary and further rigorous systematic assessment of the input parameters will be conducted.

All Authors: Mudathira Kadu, University of Toronto- Institute of Health Policy, Management & Evaluation; David Naimark, University of Toronto, Sunnybrook Health Sciences Centre; Jennifer Guo, University of Toronto- Institute of Health Policy, Management & Evaluation

ID: 182
Author: Ms. Fatima Kamal
Title: Medicinal Cannabis Use: Results from Whistler Medical Marijuana Corporation (WMMC)'s Comprehensive Survey
Type of Abstract: Poster

Objectives: Cannabis is increasingly researched for the treatment of many health conditions, including mental health. To understand medicinal marijuana users, we report on the results of a questionnaire study administered between April 2017 to January 2018. Results of this survey may inform the development and implementation of programs, services, and policies.

Approach: A survey was administered (via Typeform.com) to patients registered with a licensed producer of medical marijuana, Whistler Medical Marijuana Corporation (WMMC). The survey contained 90 questions on patients' medical history, use patterns of medical cannabis, methods of cannabis consumption and access, perceived effectiveness of cannabis at alleviating or managing their conditions, and preferences of cannabis varieties. Informed consent was obtained from survey participants. Access to the survey was restricted to one use only to avoid duplication of survey results. Participants were informed that their participation was voluntary, anonymous, and confidential.

Results: A total of 477 participants completed the online survey (289 males, 186 females, and two unidentified sex). Average rate of patients' perceived health was 6.24 on a Likert Scale of 9 (0 = Very Poor and 9 = Excellent). 33% (n=158) of the survey participants first started smoking cannabis at 16 to 19 years of age followed by 15 years of age or younger (n=114; 24%). 38%, 23%, and 22% of survey patients suffer from musculoskeletal, neuropsychiatric, and gastrointestinal conditions respectively. Over three quarters of total patients reported pain as a symptom for which they use medical cannabis (76.7%, n=365); followed by insomnia (62.8%; n=299); and anxiety (60.1%; n=286).

Conclusion: Results showed wide range of health conditions and self-reported effectiveness of cannabis. As a self-reported questionnaire study, caution must be exercised in interpreting this data set. These results point to the need for further studies of medicinal marijuana users in Canada.

All Authors: Fatima Kamal, Whistler Therapeutics; Daniel Lantela, Whistler Medical Marijuana Corporation/Whistler Therapeutics; Brishna Kamal, Whistler Therapeutics

ID: 442
Author: Dr. Monika Kastner
Title: An Idea Worth Sustaining: Evaluating the sustainability potential of the Choosing Wisely initiative across five Ontario-based community hospitals and affiliated family health teams
Type of Abstract: Poster

Objectives: 30% of healthcare services are unnecessary and unlikely to benefit patients (or even be harmful). Choosing Wisely (CW) Canada is a national campaign aimed at addressing unnecessary medical care. Our objectives were to evaluate the sustainability potential of CW at five Ontario community hospitals and affiliated family health teams (FHT).

Approach: We conducted a mixed-methods study involving the administration of a validated sustainability survey to CW implementation teams across sites at three time points: T0 (baseline), T1 (6 months), and T2 (12 months) follow-up. The survey was aimed at identifying the determinants of sustainability. We also conducted focus groups with each team following survey completion at T0 (to discuss identified challenges from the survey, and to co-create an action plan to address them) and at T1 (to discuss implementation of the action plan and any new challenges). Sessions were audio recorded and transcripts were analyzed by two reviewers using content analysis.

Results: 78 participants representing 15 teams across five hospitals and six FHTs completed surveys (T0, T1, T2) and participated in 30 focus groups (T0, T1). Three CW de-adoption priority areas were investigated: proton pump inhibitor (PPI) de-prescribing; reducing pre-op testing, BUN/Urea lab tests. The mean team sustainability scores ranged 61-73% (PPI), 87-89% (BUN/Urea), and 82-92% (Pre-Op), which were above the threshold of what is considered a sustainable innovation (55%). Top sustainability facilitators were clinical leadership engagement and fit with organization's strategic aims/culture; top challenges were adaptability of improved processes and infrastructure for sustainability. All teams identified at least one challenge (T0 focus groups) for which they co-designed (T0) and implemented (T1) an action plan to address them, thereby maximizing the sustainability potential of their CW priority.

Conclusion: Evaluating sustainability potential is critical to ensuring that innovations have the best potential for impact. Our work contributes to advancing the limited knowledge of sustainability methods; and highlight that implementation teams can be empowered to influence their implementation efforts, and to realize positive outcomes for their healthcare services and patients.

All Authors: Monika Kastner, North York General Hospital; Kate Mossman, North York General Hospital; Kegan Harris, North York General Hospital; Deepak Sharma, North York General Hospital; Julie Makarski, NYGH

ID: 461
Author: Dr. Monika Kastner
Title: Underlying mechanisms of complex interventions addressing the care of older adults with multiple chronic conditions: A realist review
Type of Abstract: Poster

Objectives: Older adults (age65+ years) are the fastest growing proportion of our population, about 2/3rds have multimorbidity, yet only half receive appropriate care. We conducted a systematic review to identify effective multi-chronic disease interventions, so we conducted a realist review (RR) to understand how, why and under what circumstances they work.

Approach: Our RR methods were guided by the RAMESES criteria. In addition to our systematic review search, we performed iterative searches to explain findings of our systematic review. Two candidate theories were identified from the literature and input from our stakeholders. Data extraction was driven by refining our candidate theories according to context-mechanism-outcome (CMO) configurations. Data was synthesized by reviewer pairs through: 1) independent extraction of relevant excerpts from included studies; 2) sorting of excerpts by concept, and developing consolidated CMO statements for each; 3) and comparing consolidated CMO statements across studies to derive final programme theories to explain our data.

Results: Of the 2435 potentially relevant citations screened for relevance, 124 articles were reviewed in full-text, and 106 articles contributed to the data analysis. We refined our analysis into three program theories that contained CMO configurations which explained the outcome patterns of our systematic review: 1) care coordination interventions are effective for multimorbidity because they represent a structured approach to comprehensive care; 2) in multimorbidity management, patients prioritize the condition that is associated with the most undesired symptoms, while providers consider the condition that most threatens morbidity and mortality; and 3) multimorbidity management requires clinical management and patient self-management, each having a different set of challenges depending on the perspective of those affected by them (patient, provider, system).

Conclusion: We found that care coordination interventions in primary care are effective for older adults with multimorbidity in the right contexts, because they represent a structured approach to holistic care. Our RR also contributes to the limited knowledge of the underlying mechanisms of complex chronic disease management interventions for older adults.

All Authors: Monika Kastner, North York General Hospital; Leigh Hayden, North York General Hospital; Geoff Wong, University of Oxford; Julie Makarski, NYGH; Sharon Straus, St. Michael's Hospital

ID: 185
Author: Mr. Hamidreza Kavandi
Title: Health Information Technology Adoption by seniors in the community: A Systematic Review
Type of Abstract: Poster

Objectives: Health Information Technologies (HIT) present opportunities to support seniors' health care needs. Prior studies have examined the adoption of HIT by seniors; yet, it remains unclear what factors are associated with HIT adoption by elderly. This study presents the results of a systematic review that synthesizes evidence in this area.

Approach: Five scientific databases (Pubmed, Medline, CINAHL, Scopus, Web of Science) were considered. Four groups of keywords were used: Group1 (adoption, behavioral intention, acceptance, usability), Group2 (elderly, seniors, aging, old), Group3 (ICT, telemonitoring, e-health, telehealth, telemedicine, telecare, assistive technology, personal health record, home automation systems, telehome care, e-consultation, smart home), Group4 (home, retirement home, community dwelling, nursing home, aging in place, living in the community, independent living, home care). All quantitative and qualitative studies that focused on seniors/elderly and reported results on adoption factors related to HIT were included. A coding scheme was developed to guide data extraction from empirical studies.

Results: Out of 1,573 studies, 36 met the inclusion criteria for this review. Most involved a cross-sectional design (64%) and were survey-based (50%). A 77% increasing trend in number of studies was observed over the last four years. 24 studies referred to a theoretical adoption model to explain the findings or test the model . The majority (67%) converged on the Unified Theory of Technology Adoption and Use and Technology Acceptance Models . Eight emerging models were proposed/tested specifically in the context of seniors' HIT adoption. Performance Expectancy (system use to gain performance) and Effort Expectancy (effort to use system) had consistent significant effect on seniors' HIT adoption across technologies. Privacy, which was absent in traditional models, also had significant effect in models specific to seniors.

Conclusion: Performance expectancy and effort expectancy are the consistent main factors affecting seniors' HIT adoption. Although their impact does not change significantly for different types of HIT, future adoption models should be developed to consider other factors such as privacy, culture, technology anxiety, and doctors' recommendation.

All Authors: Hamidreza Kavandi, Telfer school of management _ Ottawa U; Mirou Jaana, University of Ottawa

Objectives: Patient navigators (PN) and case managers (CM) provide individualized assistance to patients, typically with complex needs. These terms are often used inter-changeably, despite observed differences, resulting in a lack of clarity. This study aimed to compare the responsibilities and characteristics of PNs and CMs in the context of healthcare delivery.

Approach: A scoping review was conducted to map and compare the key functions between PNs and CMs. Comprehensive searches were conducted in three academic databases (Medline, CINAHL, PubMed), according to PRISMA guidelines (Moher et al., 2009). A structured grey literature search (CADTH, 2015) was also conducted to capture a wide range of potentially relevant sources. Identified articles were assessed according to predetermined inclusion and exclusion criteria. Data from included articles were extracted and compiled into a data charting form, then collated according to unique functions and professional roles.

Results: A total of 1040 articles were identified through the search strategy. After the removal of duplicates, 257 articles underwent full-text screening. Using an iterative process, a total of 116 academic articles were included in the final analysis. Emerging functions were collated into: 1) Responsibility Domains (i.e. tasks associated with each role, such as advocacy, care coordination, education, interprofessional collaboration) and 2) Characteristic Domains (i.e. professional features of each role, such as knowledge areas/training, method of services delivery, patient population served). Domains were organized according to three PN and CM role types: professional PN (e.g. registered nurse), lay PN (e.g. peer), and CM.

Conclusion: This study sought to outline the key differences between PNs and CMs within the literature. A variety of unique functions emerged, however a lack of information regarding nuanced differences between role type remains. Further work is needed to bring clarity to the distinction between PNs and CMs.

All Authors: Katherine Kelly, University of New Brunswick; Shelley Doucet, University of New Brunswick; William Montelpare, University of Prince Edward Island

ID: 398
Author: Ms. Katherine Kelly
Title: Adopting a nurse practitioner clinic into an existing community organization to support unaffiliated patients: A case study
Type of Abstract: Poster

Objectives: It is expected that community-based nurse practitioner-led clinics (NPLCs) can improve access to primary healthcare for patients in Canada unassigned to a primary care provider. This report highlights the work of the CHANCES Family Health Clinic heretofore referred to as The Clinic, a non-profit NPLC located in Prince Edward Island.

Approach: In partnership with the CHANCES Family Centre and the PEI-Primary and Integrated Health Care Innovations (PIHCI) Network, indicators of clinic success and shortcomings in the context of access to primary health care were explored. Service use and patient profiles were examined through data mining in the Clinic's OSCAR electronic medical recording system. Interviews were also conducted with clinic stakeholders to understand the motivators for establishing a community NP-led clinic within the CHANCES organization.

Results: The Clinic is the first independent NPLC to offer primary health care services in PEI. In 2014, approximately 10% of the population in PEI were not assigned to a primary care provider, thereby denoting these individuals as unaffiliated patients (Statistics Canada, 2014). Since opening in 2014, the CHANCES Clinic provided healthcare services for over 600 unaffiliated patients. A majority of these patients were children under the age of 18 years (48%). At the inception of the clinic, five goals were adopted as fundamental to informing Clinic initiatives and strategies: 1) to reduce barriers to basic health services; 2) to encourage the adoption of positive lifestyles; 3) to support referrals; 4) to promote upstream approaches to health; and 5) to maintain a health clinic advisory committee.

Conclusion: NP-led clinics offer an innovative model for healthcare service delivery and as demonstrated here, can help to alleviate demands for primary care delivery. The success of the PEI experience demonstrates the value that can be attained by local health authorities when incorporating an NP clinic into an established community organization.

All Authors: Katherine Kelly, University of New Brunswick; Patricia Malinski, University of Prince Edward Island ; Shelley Doucet, University of New Brunswick; William Montelpare, University of Prince Edward Island

ID: 51
Author: Mr. Kyle Kemp
Title: Identifying Areas for Improvement in Pediatric Inpatient Care: Analysis of Surveys from 14 Alberta Hospitals
Type of Abstract: Poster

Objectives: The Child-Hospital Consumer Assessment of Healthcare Providers and Systems (Child-HCAHPS) survey is a validated measure of pediatric inpatient experience. Little is known about aspects of care deemed most important by respondents. The study objective was to determine which survey questions were most associated with respondents' overall rating of care.

Approach: This retrospective study assessed survey responses from randomly-selected parents/guardians of children who were hospitalized for a minimum of 24 hours in 14 Alberta hospitals. Surveys were comprised of 66 questions, and were completed by telephone within 6 weeks of the child's discharge from hospital. One survey question asked respondents to rate the overall care that their child received on a scale from 0 (worst care) to 10 (best care). Associations between the overall rating of care and each survey question was then examined using Spearman correlation coefficients. All survey questions were normalized to a 100-point score (0=worst, 100=best).

Results: From October 2015 to March 2017, 3,389 respondents completed the survey. Patients were predominantly male (n=1,868, 55.1%), had a mean age (at discharge) of 4.4 years (median=1.5, range=6 days to 17.9 years), and a mean length of stay of 7.9 days (median=3.9, range=1 to 191). The mean overall rating of care score was 87.4±14.2. Survey questions most correlated with the overall rating of care pertained to nurses listening carefully to parents (r=0.42), doctors encouraging children to ask questions (r=0.40), providers asking children about their concerns prior to hospital discharge (r=0.40), providers keeping parents informed about their child's care (r=0.40), and nurses listening carefully to the child (r=0.40). No differences in correlations were observed according to hospital type (children's hospitals vs. other sites).

Conclusion: To our knowledge, this is the first Canadian study which uses the Child HCAHPS to examine which elements of pediatric inpatient care are most associated with one's overall rating of care. Our findings present opportunities for quality improvements in communication between parents and providers as well as pain control.

All Authors: Kyle Kemp, University of Calgary; Hude Quan, University of Calgary; Sadia Ahmed, University of Calgary; María José Santana, Cumming School of Medicine, university of Calgary; David Johnson, University of Calgary

ID: 52
Author: Mr. Kyle Kemp
Title: Drivers of Experience in the Pediatric Inpatient Setting: Results from the Child HCAHPS Survey
Type of Abstract: Poster

Objectives: Since its validation in 2014, the Child-Hospital Consumer Assessment of Healthcare Providers and Systems (Child-HCAHPS) survey has been adopted in several jurisdictions. The objective of this study was to examine how selected demographic and clinical factors may be associated with overall rating of care in the pediatric inpatient setting.

Approach: Within 6 weeks of discharge, telephone Child-HCAHPS surveys were completed by parents/guardians of children who were hospitalized. The survey contained 66 questions and took approximately 15 minutes to complete. One survey question asked respondents to rate the overall care that their child received on a scale from 0 (worst care) to 10 (best care). Responses to this question were dichotomized as "high" (9 and 10) versus "low" (0 to 8), according to HCAHPS "top box" reporting methodology. The association between the overall rating of care and selected demographic and clinical variables was assessed using crude and adjusted logistic regression models.

Results: From October 2016 to March 2017, 3,278 surveys were completed across 14 hospitals (2 stand-alone children's, 12 primarily adult) in Alberta. Patients had a mean length of stay of 7.9 days (median=3.8, range=1-191). Overall, 63.9% (n=2,093) of parents/guardians rated their child's overall care as "high". In crude and adjusted models, pediatric hospitals were more likely to have a "high" rating (aOR=2.74, 95%CI: 2.32-3.24), as were parents of children in excellent (aOR=2.05, 95%CI: 1.58-2.66), or very good/good (aOR=1.32, 95%CI: 1.04-1.68) health. When compared with a length of stay of greater than one week, respondents whose children who remained in hospital less than 3 days (aOR=0.68, 95%CI: 0.55-0.83), or 3 to 7 days (aOR=0.79, 95%CI: 0.65-0.97) were less likely to have a "high" overall rating.

Conclusion: Our results indicate that hospital type, parent-reported health status of the child, and length of hospital stay are associated with overall rating of care. The findings may be useful for potential case-mix algorithms as well as to identify individuals who may have a less than positive hospital experience.

All Authors: Kyle Kemp, University of Calgary; Hude Quan, University of Calgary; Sadia Ahmed, University of Calgary; María José Santana, Cumming School of Medicine, university of Calgary; David Johnson, University of Calgary

ID: 565
Author: Mr. Ahmad Firas Khalid
Title: Approaches to the Use of Research Knowledge in Policy and Practice during the Syrian Refugee Crisis
Type of Abstract: Poster

Objectives: With an increasing demand on health systems to respond to the Syrian refugee migration crisis and Canada taking a leadership role in accepting Syrian refugees, there couldn't be a better time to conduct rigorous research to examine approaches to evidence informed decision-making in healthcare delivery for the Syrian refugees.

Approach: Document analysis and key informant interviews utilizing semi-structured questions at Médecins Sans Frontières, to identify some of the barriers and facilitators by using Knowledge Translation (KT) approaches in health systems serving the Syrian refugee crisis. The rigours approach employed for this research area resulted in crucial findings that help contribute to the future of Canada's healthcare system in adapting to already resettled Syrian refugees. It also allows health services research to shape the future of our healthcare system in serving this vulnerable population

Results: Facilitators to MSF's use of research evidence in decision-making include MSF uses surveys to assess and identify research gaps in the field. Barriers to MSF's use of research evidence in decision-making include lack of a receptive climate for research remains a barrier to the utilization of research knowledge in decision-making and lack of a formalized process for field staff to acquire research evidence. Understanding the findings of the above research questions would enhance the quality, effectiveness and coverage of healthcare programme delivery for Syrian refugees and enable the health system to be more responsive to the healthcare needs of the Syrian refugees

Conclusion: There are many lessons that the Canadian health system can learn from organizational decision making . This study highlights the importance behind collaborative partnerships between different sectors. The scarcity of available resources makes it imperative that resources are used based on research evidence, to maximize the health outcomes among vulnerable

All Authors: Ahmad Firas Khalid, McMaster University

ID: 184
Author: Mr. Jason Kim
Title: Comparative effectiveness of timing alternatives for hip fracture surgery
Type of Abstract: Poster

Objectives: Appropriate timing of hip fracture surgery remains debated. The purpose of this study was to estimate the effect of possible changes in timing policy on postoperative in-hospital mortality.

Approach: Using discharge abstracts for hip fracture surgery performed between 2004 and 2012 in Canada, we contrasted the risks of in-hospital death that would be expected if all patients who are medically stable at presentation were to undergo surgery on the day of admission, on inpatient day 2, on inpatient day 3, or later. Resultant risk differences between these timing alternatives informed a critical point for the timing of hip fracture repair for medically stable patients. The population-average risks of in-hospital death were estimated by weighting observations with inverse probability of surgical timing according to confounders selected from a causal diagram.

Results: Of 139,119 patients with a fractured hip aged 65 years or older and medically stable at presentation, 23.1% underwent surgery on the day of admission, 43.5% on inpatient day 2, 21.0% on day 3, and 12.4% after day 3. Cumulative 30-day in-hospital mortality was 4.9% for patients operated on admission day, increasing to 6.9% for after day 3. We project an additional 10.9 (95% CI, 6.8 to 15.1) deaths per 1,000 surgeries if all patients were to undergo surgery after 3 inpatient days instead of admission day; the risk difference was much smaller with shorter time. A substantial proportion of patients, 16.5% (95% CI, 12.0% to 21.0%), would have avoided death had they undergone surgery within 2 days of admission.

Conclusion: We recommend that all medically stable older adults with a fractured hip undergo surgery on the day of admission to hospital or the following day. This recommendation is more stringent than the nationally recognized 48-hour benchmark which ends on inpatient day 3.

All Authors: Jason Kim, University of British Columbia; Boris Sobolev, University of British Columbia; Pierre Guy, University of British Columbia; Katie Sheehan, King's College London; Lisa Kuramoto, University of British Columbia; For the Canadian Collaborative Stud

Title: Severity and Burden of Mental Health: Techniques for stratifying chronic conditions based on linked clinical history
Type of Abstract: Poster

Objectives: Using cross-continuum implementation of clinical records at Vancouver Island Health Authority we demonstrate analytical techniques supporting empirical stratification of diagnostically homogeneous cohorts based on severity and burden of condition. We visualize the variability in clinical histories of patients with confirmed diagnosis of (1) schizophrenia and (2) bipolar disorders.

Approach: The linked data model includes three components. (1) The records of encounters with secondary and tertiary services provide a time-stamped tape of clinical events, in the context of which other clinical information can be interpreted. (2) Diagnostic profiles come from emergency and acute care administrative sources (National Ambulatory Care Reporting System (NACRS) and Diagnosis Abstract Database (DAD), respectively). (3) Substance use and psychiatric profiles come from the Ministry of Health's Minimum Reporting Requirements (MRR) for Mental Health and Substance Use (MHSU) conditions. We train statistical models to detect consistent patterns of service use (PSU) forming the basis for stratification mechanism.

Results: We organize our data methods according to the guidelines of reproducible research, a technical enabler of a learning healthcare system. We present a series of information displays demonstrating clinical heterogeneity of diagnostically homogeneous cohorts by describing the variability in their clinical histories. We demonstrate how we operationalize PSUs related to (1) the rate of emergency department encounters (2) number of days spent in acute care and (3) the rate of engaging laboratory services. We employ these quantifications of severity and burden to compare and contrast clinical journeys of two diagnostically homogeneous groups: patients with schizophrenia and patients with bipolar disorder.

Conclusion: We can better understand the experiences of patients with chronic mental health conditions if we examine patients' journeys through the healthcare system in the context of linked clinical history. Patterns of service use and clinical profiles are effective tools for empirical stratification of severity and burden among patients with schizophrenia.

All Authors: Andriy Koval, University of Central Florida; Kate Smolina, BC Centre for Disease Control; Kenneth Moselle, Vancouver Island Health Authority

Title: Variation in the care of elderly-onset inflammatory bowel disease: a comparison of Local Health Integration Networks and Multispecialty Physician Networks
Type of Abstract: Poster

Objectives: Inflammatory bowel disease (IBD) is increasingly common among elderly Canadians. Seniors with IBD living in rural Ontario have decreased use of specialized gastroenterologist care, which has been demonstrated to improve outcomes. This study compares variation in care in elderly-onset IBD across Local Health Integration Networks (LHIN) and multispecialty physician networks.

Approach: Incident cases of elderly-onset IBD (diagnosed ≥65y) identified from health administrative data were linked to a LHIN based on their postal code and to a physician network based on their primary provider of outpatient IBD-specific care at diagnosis (outpatient visits with a diagnostic code for Crohn's or ulcerative colitis). Variation in access to specialist care, defined as having ever seen a gastroenterologist, was assessed across both networks and LHINs. We also assessed variation in the risk of surgery, emergency department (ED) visits, and hospitalizations in the first year following diagnosis. Variation was quantified using the weighted coefficient of variation (WCV).

Results: Median (range; WCV) proportion of patients having ever seen a gastroenterologist within the first year following diagnosis was 82.3% (0-89.2%; 4.3%) and 80.0% (59.2-94.3%; 1.1%) across networks and LHINs, respectively. WCV was 4-fold higher for networks than LHINs. The variation across LHINs and networks were similar for proportion of patients hospitalized (network: median 34.6%, WCV 1.73%; LHIN: median 27.0%; WCV 0.75%). Variation was 5-6 times higher for networks than LHINs for risk of (1) colectomy among patients with ulcerative colitis (network: median 8.8%, WCV 3.0%; LHIN: median 10.4%, WCV 0.46%); (2) intestinal resection for Crohn's (network: median 18.4%, WCV 4.6%; LHIN: median 19.0%; WCV 1.0%); and (3) IBD-specific ED visits (network: median 13.8%, WCV 2.2%; LHIN: median 13.8%, WCV 0.37%).

Conclusion: Substantial variation in access to care and health service utilization among Ontarians with elderly-onset IBD exists across multispecialty physician networks of care, but less variation exists across LHINs. When evaluating variation, it is important to consider the unit of analysis variation in care is adequately understood and addressed.

All Authors: Ellen Kuenzig, CHEO Research Insitute; Therese Stukel, ICES; Geoffrey Nguyen, University of Toronto; Eric Benchimol, ; Robert Talarico, ICES uOttawa

ID: 40
Author: Dr. Karine Landry
Title: Private Drug Plans in Canada: High-Cost Drugs and Beneficiaries, 2016
Type of Abstract: Poster

Objectives: The increased availability and use of high-cost drugs has been fueling the recent growth in drug expenditures in Canada, raising concerns over the sustainability of private drug plans. This study provides insight into the impact of high-cost beneficiaries and the increased use of high-cost drugs on private plan expenditures.

Approach: The analysis examines trends in the number and cost of high-cost beneficiaries as well as trends in the number and cost of high-cost drugs and their share of total drug plan costs. The study explores the top-selling drugs with an average annual cost of over $10,000 and examines costs by therapeutic areas. Data are from QuintilesIMS Private Pay Direct Drug Plan Database.

Results: The expenditure on high-cost drugs is highly concentrated in a few products, which tend to have sizable beneficiary groups. Although less than 1% of beneficiaries have annual drug costs exceeding $10,000, they account for one quarter of private drug plan costs. While these beneficiaries pay for only a small fraction of their drug costs, their share has been on the rise and amounts to thousands of dollars annually. The rising beneficiary-paid shares have been a recent trend for all patient groups due to cost-containment measures implemented by private drug plans.

Conclusion: These results underline the increasing predominance of specialized drugs, including biologics and orphan drugs, which put increasing pressure on drug plan costs. This information will be of interest to policy makers and drug plan managers concerned with the on-going sustainability of the Canadian healthcare system.

All Authors: Karine Landry, PMPRB; Elena Lungu, Patented Medicine Prices Review Board

ID: 165
Autheur: Mr. Jonathan Lapointe
Titre: Intégration des données médicaments à travers le continuum de soins - Évaluation de l'utilisabilité de quatre Dossiers médicaux électroniques (DMÉ)
Type d'abstrait: Affiche

Objectifs: Bien qu'ils soient de plus en plus répandus, les systèmes d'échange d'informations cliniques électroniques présentent des défis inattendus avec l'intégration des données de différentes sources. L'objectif de ce projet était d'analyser l'utilisabilité des dossiers médicaux électroniques interfacés avec un système régional d'échange d'information pour la gestion des données médicaments.

Approche: Une étude à cas multiple a été réalisée dans 4 cliniques médicales utilisant différents DMÉ et le même système d'échange d'informations cliniques entre mai 2016 et juin 2017. La collecte de données s'est faite par l'observation des professionnels via enregistrements vidéo ainsi que des entrevues auprès des médecins, des pharmaciens et des infirmières (n=27). Sept principes (Zahabi [4]) ont servi à analyser l'utilisabilité des DMÉ, définie comme la facilité et l'efficacité d'usage pour la décision clinique. Des entrevues semi-structurées auprès d'acteurs stratégiques impliqués dans l'implantation du système ont aussi été complétées. L'analyse comparative de chaque cas a été réalisée.

Résultats: On remarque, premièrement, que l'utilisabilité est variable selon le DMÉ : chacun présente les données à sa manière et les nomme différemment. Au plan visualisation, bien que beaucoup de données sont affichées et disponibles à l'utilisateur, certaines améliorations pourraient rendre leur analyse plus intuitive, par exemple par l'ajout de tri et l'utilisation d'une interface adaptée. De plus, le processus d'import des données n'est pas optimal. Deux systèmes importent les données automatiquement sans règles de réconciliation, ce qui rend les usagers confus et demande des opérations manuelles que tous ne sont pas à l'aise de faire. Dans cette étude, les principes les plus négligés sont la conformité à la pratique, la cohérence, la réduction de la charge cognitive, la prévention des erreurs et la flexibilité.

Conclusion: Il est nécessaire d'améliorer l'utilisabilité des DMÉ pour faciliter l'intégration des données médicament de différentes sources tout au long du continuum de soins. Les efforts de développement et de standardisation des définitions doivent se poursuivre pour établir des normes et standards permettant de favoriser leur utilisation par l'ensemble des professionnels.

Autheurs: Jonathan Lapointe, Evaluation and Health Policy, School of public health, University of Montreal; Aude Motulsky, Université de Montréal; Claude Sicotte, Université de Montréal

ID: 58
Author: Dr. Susan Law
Title: Experiences of using medical cannabis in different regulatory contexts: planning an international qualitative study. Preliminary results: narrative synthesis and methods
Type of Abstract: Poster

Objectives: An international team of qualitative researchers conducted background work to plan a comparative study exploring personal narratives of medical cannabis use. Our objective is to consider the implications of different regulatory strategies on the personal narratives and lived experience of users across jurisdictions and different sub-groups (clinical and socio-demographic attributes).

Approach: Our approach included: a narrative synthesis of qualitative evidence regarding user experience; a review of sex and gender considerations; an analysis of the policy and regulatory contexts in participating countries; and development of proposed methods for comparative study. 573 records were retrieved about user experience; 14 eligible studies were retained for thematic analysis. A separate literature search and expert consultation was undertaken to consider sex and gender as analytic categories in understanding narratives of medical cannabis users. A review of online, grey and published literature informed a preliminary contextual analysis for Canada, Israel, US, UK, Germany, Australia and the Netherlands.

Results: Emergent themes in the synthesis included issues related to access, stigma, and therapeutic efficacy, with an indication of important variations across sub-groups (related to clinical and/or socio-demographic attributes). The definition of medical/therapeutic use of cannabis was inconsistently reported, whether prescribed by a physician or used by patients to self-medicate. Gender affects how individuals make sense of medical cannabis use, frequency of use, and perceived benefits. The contextual analysis highlighted differences across jurisdictions in production and regulation, but similarities in governance. Medical cannabis organizations are typically housed within government health departments, and use often requires an exemption from federal law prohibiting cannabis use (this is rapidly changing). The results of this planning phase will inform the design of the comparative study across the 7 participating countries.

Conclusion: The health system context for medical cannabis is complex and rapidly evolving. There is limited evidence from the users' perspective of variation in user motivation, access, sex and gender considerations, and benefit across sub-groups. A larger comparative study will permit deeper exploration of the policy implications for lived experiences.

All Authors: Susan Law, Institute for Better Health; Stephanie Babinski, University of Toronto; Mark Ware, Alan Edwards Pain Management Unit, McGill University Health Centre; Rachel Grob, University of Wisconsin; Mark Schlesinger, Yale School of Public Health; Maya

ID: 102
Author: Dr. Thao Lan Le
Title: A system-level description of substance use treatment for pregnant and parenting women in Ontario
Type of Abstract: Poster

Objectives: Integrated care programs have been created to address some of the barriers experienced by women who are pregnant or parenting. This study aims to: 1) characterize the women attending integrated treatment programs in Ontario; 2) identify treatment participation, including retention and treatment attendance; and 3) investigate client-level predictors of treatment

Approach: Using system-level administrative data on a Canadian treatment population, we describe participation and predictors of treatment participation in a suite of outpatient integrated care programs over a 7-year period (2008-2014; N=5162).

Results: Retention (number of days between first and last visit) averaged 124.9 days (SD=185.6), with episodes consisting of 14.9 visits (SD=28.6). The vast majority of women did return for a second visit (87.2%), typically within 2 weeks of their initial visit (mean=12.3 days, SD=11.1). Although several sociodemographic characteristics predicted treatment participation, the magnitude of associations was small, indicating that participation was not overly concentrated to particular client subgroups.

Conclusion: Results suggest that integrated care programs are successful at engaging their clients, although greater efforts may be warranted to connect with women prenatally. Attendance parameters were not overly concentrated to client subgroups. Further work is needed to characterize these programs and identify predictors that influence participation.

All Authors: Thao Lan Le, Centre for Addiction and Mental Health; Karen Urbanoski, University of Victoria; Karen Milligan, Ryerson University ; Chris Kenaszchuk, Centre for Addiction and Mental Health

ID: 333
Author: Ms. Marichelle Leclair
Title: The impact of interventions for homeless people with mental illness on criminal justice outcomes and costs: A scoping review
Type of Abstract: Poster

Objectives: The objectives of this scoping review were to synthesize quantitatively the literature examining the impact of interventions for homeless individuals with mental illness on criminal justice outcomes and costs.

Approach: We searched PsycINFO, MEDLINE, Embase, CINAHL, Web of Science to identify relevant studies published between 2000 and 2017. At each stage, two authors independently reviewed and coded the literature. The methodological quality of observational studies was assessed using the Newcastle-Ottawa Scale, while the methodological quality of randomized controlled trial was assessed using the Cochrane Collaboration's tool.

Results: The search yielded 21 studies. Interventions were either housing interventions, with or without additional support, case management services, of varying levels of intensity, and jail diversion programs. Most studies showed that scattered-site housing diminished criminal justice involvement, with the exception of two high quality randomized controlled trials. Studies on congregate housing reported that the intervention had no effect on criminal justice involvement or increased criminal justice involvement. Results from studies on case management programs and jail diversion programs were difficult to interpret given the low quality of the studies.

Conclusion: This scoping review revealed that very little is known about the effectiveness, with regards to criminal justice involvement, of interventions for homeless people with mental illness, that may or may not target those who are justice-involved specifically.

All Authors: Marichelle Leclair, McGill University; Félicia Deveaux, Université de Montréal; Marie-Hélène Goulet, McGill University; Eric A Latimer, McGill University; Anne Crocker, Université de Montréal

ID: 274
Author: Ms. Janelle Boram Lee
Title: Indigenous Children in Care of Child Protection Services: A Manitoba Population Study
Type of Abstract: Poster

Objectives: In Manitoba, a high proportion of children in care are from an Indigenous group (e.g., First Nations, Metis, or Inuit). The objective of the study is to quantify the population-level risks of child welfare involvement of Indigenous children in the province of Manitoba.

Approach: Statistics Canada and Child and Family Services Information System (CFSIS) data held in the Manitoba Centre for Health Policy's (MCHP) repository were used to identify Indigenous children from 0 to 14 years of age in Manitoba (n = 58,195; non-Indigenous n = 166,865), and the percent of children who were in care at least one day at any time between April 1, 1992 and December 31, 2006 was calculated. CFSIS data from 2009/10 to 2011/12 were used to calculate the proportion of Indigenous children in care whose first in-care episode occurred before age one and who were apprehended at birth.

Results: 16.6% of all Indigenous children in Manitoba (22.4% of First Nations, 6.4% of Metis, and 15.4% of Inuit) had spent some time in care by the time they were 15 years old, compared to 1.7% of non-Indigenous children. Out of all First Nations children in care between 2009/10 and 2011/12, 35.5% were first taken into care during their first year of life compared with 29.3% among Metis children, and 21.1% among non-Indigenous children. We found 10.2% of non-Indigenous children in care were apprehended at birth compared with 15.6% of First Nations and 15.3% of Metis children in care. Due to the small number of Inuit children in care in Manitoba, the findings on age at first entry into care for this group are not reported.

Conclusion: In Manitoba, a high proportion of Indigenous children are at risk of entering care. Indigenous children are more likely to first enter care during their first year of life and more likely to be apprehended at birth than non-Indigenous children. More policies, programs, and resources aimed at prevention are required.

All Authors: Janelle Boram Lee, University of Manitoba; Marni Brownell, Manitoba Centre for Health Policy; Mariette Chartier, ; Wendy Au, Manitoba Centre for Health Policy; Nathan Nickel, University of Manitoba; Leonard MacWilliam, Manitoba Centre for Health Policy;

ID: 491
Author: Ms. Esther Maas
Title: Cost-benefit analysis of gradual return-to-work for workers with a musculoskeletal disorder in British Columbia
Type of Abstract: Poster

Objectives: Gradual-return-to-work (GRTW) can improve health and labour market outcomes in an aging workforce with an increased risk of musculoskeletal disorders (MSDs). This project's aim is to investigate the effectiveness and cost-benefits of GRTW, as part of a RTW trajectory, for workers with a work-acquired MSD in British Columbia (BC).

Approach: We will use population-based linked data, including workers' compensation data, Ministry of Health data, and BC PharmaNet data to identify injured workers with an accepted MSD lost-time claim with an injury date between 2010-2015 in BC. We will: 1) identify trajectories of RTW states (injury, sickness absence, GRTW, RTW, and non-RTW) and the probability of transitioning between states; 2) Use multivariate poisson regression to assess the association between abovementioned characteristics and RTW trajectories; 3) Match workers with and without GRTW, and use a quasi-experimental design to perform cost-benefit analyses of GRTW from a workers' compensation, employers', and a societal perspective.

Results: Final results are expected early 2019. To our knowledge, this will be the first study linking workers' compensation data (in particular detailed RTW data) and the Ministry of Health data for a comprehensive, population-based investigation of work disability experiences over a longitudinal time period and within the Canadian context. Also, using this data for the purpose of assessing the cost-benefits is new, and will help to prioritize prevention resources and strategies to limit the health and economic impact of work-related MSDs on employers, workers' compensation boards and society.

Conclusion: Evaluating the effects of GRTW on work disability is essential to understand the health and economic benefits, and increase its uptake for injured workers in British Columbia.

All Authors: Christopher McLeod, University of British Columbia; Esther Maas, University of British Columbia; Wei Zhang, University of British Columbia; Mieke Koehoorn, University of British Columbia

ID: 222
Author: Mr. Adrian MacKenzie
Title: Will the kids be all right? Health workforce requirements vs. supply for pediatric mental health services in Nova Scotia
Type of Abstract: Poster

Objectives: The objective of this study was to estimate, using a dynamic, multi-professional needs-based simulation model, the supply of and requirements for health human resources (HHR) to address anxiety and depression among school-aged children in Nova Scotia through 2030.

Approach: The model is populated with data from population health surveys, administrative databases, relevant published literature, and multiprofessional panels of clinicians whose practices focus on this population and these conditions. The number and mix of nurses, physicians, psychologists, and social workers required to address anxiety and depression among school-aged children in Nova Scotia is simulated under a variety of potential future scenarios. The model is also used to simulate the impacts of several potential policy options aimed at addressing workforce and service gaps, including the development of a new provincial model of care for child and adolescent mental health.

Results: Multiple sets of specific policy conditions under which Nova Scotia's future supplies of nurses, physicians, psychologists, and social workers will be adequate to address the needs of the province's school-aged children with anxiety and depression are identified. The relative sensitivity of the model's estimates of future HHR requirements and supply to modest differences in the assumed future value of planning parameters – specifically the prevalence of anxiety and depression, planned levels of service provision for different levels of need, the division of work across multiple health professions, the productivity of different health professions, and the degree of clinical focus among different health professions on pediatric anxiety and depression – is also demonstrated.

Conclusion: The adequacy of Nova Scotia's future HHR supply to address anxiety and depression among the province's school-aged children depends on the degree to which its health stakeholders are able to influence specific planning parameters. More broadly, HHR planning models of this nature can help reduce unmet needs for health care.

All Authors: Adrian MacKenzie, Memorial University of Newfoundland; Richard Audas, Memorial University of Newfoundland; Gail Tomblin Murphy, Dalhousie University; Michael Zhang, Saint Mary's University

ID: 575
Author: Dr. Martha MacLeod
Title: The geographical shaping of practice: Differences in rural nurses' experiences across Canada's provinces
Type of Abstract: Poster

Objectives: Rural nursing practice is often described in a homogenous way. The purpose of this presentation is to explore the similarities and differences in nurses' experiences across Canada of living and working in rural communities, to better understand the influence of geography on the rural workforce and its recruitment and retention.

Approach: A survey was mailed to a stratified systematic sample of registered nurses, nurse practitioners, registered psychiatric nurses, and licensed/registered practical nurses in communities of 10,000 or less in every province and all nurses in the territories. The Canada-wide response rate was 40% (3822). 1855 of 3201 nurses from ten provinces provided narrative comments to the question: What does it mean to be a nurse in rural and remote Canada? Responses, ranging from a few words to lengthy descriptions, were analyzed per province through several stages using broad categories induced from the data. Themes were compared across provinces through team discussions.

Results: The nurses worked in a wide range of practice settings including primary care, acute care, community health, home care, mental health and addictions, and long-term care. Participants described the advantages of rural practice, the wide range of their responsibilities as nurses, and the resultant personal and professional challenges. Often their professional and personal experiences were intertwined. At the heart of the nurses' experiences were their relationships with communities where they worked and lived. Striking differences were noted among provinces where in addition nurses' experiences with differing health care systems, their experiences of nursing practice were rooted in the physical, social, and cultural aspects of communities. What it meant to be a rural nurse varied according to weather, geography, and the human fabric of communities.

Conclusion: Rural nursing practice cannot be understood as a unitary entity. In order to successfully recruit and retain nurses in rural communities, a fine-grained, nuanced understanding is needed of the ways in which the physical and social geography shapes the practice and experience of nurses in rural and remote Canada.

All Authors: Martha MacLeod, University of Northern British Columbia; Ruth Martin-Misener, Dalhousie University; Irene Koren, Laurentian University; Lela Zimmer, University of Northern British Columbia; Davina Banner, University of Northern British Columbia; Erin Wils

ID: 387
Author: Ms. Maggie MacNeil
Title: Development and Testing of a Web-based Resource on Policies and Regulations for Health Technologies
Type of Abstract: Poster

Objectives: Innovators often find it challenging to navigate policy and regulatory systems to have their technologies adopted in multiple Canadian jurisdictions. As part of a national aging and technology network, AGE-WELL, our group works to promote the understanding of potential policy and regulatory hurdles among innovators and decision-makers

Approach: We surveyed leaders of AGE-WELL's technology-developing projects to characterize the technologies being developed within the network. Using resources identified through the CADTH Grey Matters search tool, and in consultation with legal and regulatory consultants, we created a policy primer highlighting key considerations for innovators during the innovation process. The policy primer and survey data were used to create tailored innovation maps that illustrate considerations for each technology being developed within the network. We then used the primer to develop a beta website where users can receive answers to questions about their technology and receive information relevant to each innovation stage.

Results: Stakeholder feedback was obtained at two AGE-WELL Annual General Meetings (AGM). The website was seen as a helpful resource in understanding different aspects of the policy and regulatory processes required to have their technology adopted in Canada. Attendees of the AGM expressed interest in gaining further access to these developing resources. Through one-on-one consultations with AGE-WELL technology developers, we obtained feedback on the beta website. Innovators requested more information related to the innovation pathway for those technologies which will not require Health Canada regulation. Innovators felt they were least prepared for their technologies to be procured by health care organizations, and most prepared for the research and development phases of technology development. Innovators recommended these materials for innovators outside of the AGEWELL network.

Conclusion: Further testing and feedback on this resource among heath technology regulators, AGE-WELL innovators and those innovators working independently from a research network is required. Sustainability of this resource to ensure its continued relevance is an important consideration going forward

All Authors: Maggie MacNeil, McMaster University; Melissa Koch, University of Waterloo; Don Juzwishin, Alberta Health Services; Paul Stolee, University of Waterloo

Objectives: This objective of this study was to identify facilities with anomalous data quality of their activity reporting, using machine learning techniques on data of a set of normalized indicators. These data quality anomalies may be caused by inappropriate reporting practices or deliberate "gamification" of the funding system.

Approach: The data used for analysis consisted of seventeen normalized data quality indicators for each facility, for twelve annual quarters. These indicators pertain to specified domains of acute care. First, Principal Component Analysis (PCA) was applied to these indicators to reduce dimensionality. Then, various clustering algorithms were applied on the principal components to cluster hospitals exhibiting similar behaviour. After selecting the optimal clustering model, the cluster(s) with questionable reporting could be identified by examining the principal components. The results were verified using anomaly detection algorithms. The impact of the different indicators on the model results was also studied

Results: Initially, the analysis treated teaching and large hospitals indifferently. This assumption resulted in only teaching hospitals being flagged, indicating that the two categories have fundamentally different behaviour and should be modelled separately. Conducting the analyses separately yielded results that were mostly consistent with results from CIHI's study, (ie., ranking facilities using a weighted sum of the indicators). To further verify these results, isolation forest, an anomaly detection algorithm, was used. In this algorithm, since anomalous hospitals may be outlying due to strong performance or poor performance, the algorithm is not sufficiently informative on its own. However, the rankings from this algorithm can be used to verify the results from the clustering algorithm. We found that the results from the two approaches did indeed agree.

Conclusion: This exploratory project demonstrated the benefits of using machine learning algorithms to identify anomalous behaviour in data. Our approach could be used routinely for reporting data quality. The model performance should improve with feedback loop based on audit of flagged facilities

All Authors: Kamil Malikov, Ministry of Health and Long-term Care; Imtiaz Daniel, Ontario Hospital Association; Haoran Zhang, MOHLTC; Qing Huang, The Ontario Ministry of Health and Long Term Care; Saad Rais, Ministry of Health and Long-Term Care; Jagadish Rangrej, Ont

Objectives: Use of person-centred quality indicators (PC-QIs) can help healthcare systems drive the needed changes for person-centred care (PCC), and improve health quality and service delivery. This study will assess barriers and facilitators of implementation to gain an understanding of the factors that may impede system-level implementation of PC-QIs.

Approach: In collaboration with patients/caregivers, healthcare providers, Alberta Health Services (AHS), Alberta Ministry of Health, provincial health quality councils, and the Canadian Institute for Health Information (CIHI), we are designing, implementing and evaluating the use of PC-QIs (developed by Santana et. al 2017) in a real-world clinical setting. We are recruiting 20 quality improvement leads in Alberta and across Canada for semi-structured interviews (n=20) to assess: resources required for data collection and reporting, integration into existing quality improvement processes, and clinical sites. Content analysis methods are used to analyze the data, following a framework related to feasibility domains for system-level implementation.

Results: As a study in progress, we are in the process of stakeholder engagement. We have built a network of regional and national stakeholders including quality improvement experts, policy makers, clinician-researchers, and patients/caregivers. There is substantial buy-in from these stakeholders, with CIHI currently coordinating efforts around PCC measurement across Canada, and an ongoing initiative within Alberta to evaluate their Patient-First Strategy, amidst ongoing challenges in streamlining data collection and reporting on PCC for quality improvement purposes across the province. Final findings from this feasibility assessment include a description of implementation barriers and facilitators, to co-develop an implementation strategy with patients/caregivers, the Health Quality Council of Alberta, AHS, and the Alberta Ministry of Health for PC-QI implementation in Alberta.

Conclusion: Ultimately, this study will guide healthcare policy and practice change towards PCC. As evidence is needed for how to successfully implement PC-QIs, this feasibility assessment will provide an important basis for the use of PC-QIs in Alberta and Canada.

All Authors: Kimberly Manalili, University of Calgary; Cathie Scott, Alberta Centre for Research with Children, Families & Communities; María José Santana, Cumming School of Medicine, university of Calgary

ID: 205
Author: Mr. Derek Manis
Title: Supervised Injection Facilities in Ontario, Canada: A Qualitative Content Analysis of Injection Opioid Use Problem Definition in News Media
Type of Abstract: Poster

Objectives: The opioid crisis continues to grow and consume unprecedented levels of health and social care resources within communities. This research investigated how supervised injection facilities (SIFs) are portrayed in the media and defined as a solution to curtail opioid-related hospitalizations and overdoses attributed to problematic injection opioid use.

Approach: A social constructivist philosophical orientation guided a qualitative content analysis of news media sources from January 1, 2000 – November 29, 2017 covering the cities of Toronto and Ottawa – two Ontario cities that have pop-up SIFs operating without an exemption under the under the Controlled Drugs and Substances Act. News sources were retrieved from the LexisNexis Academic database using keywords "supervised injection or consumption" and "opioid or narcotic". Sources were manually coded and investigated using Stone's policy analysis framework for exploring the role of symbols, numbers and causes to define policy problems. Researcher reflexive memos also directed the analysis.

Results: A total of 282 news media sources were identified for the two cities in the search and 69 duplicate sources were removed (n = 213). SIFs were portrayed as a safe space for people who inject opioids to prevent overdoses and dying alone, and to access health and social care pertinent to their needs. The counting of opioid-related hospitalizations, overdoses and deaths affirmed that innovative and immediate action with SIFs is needed within these communities. The influx of illicit fentanyl and opioid prescribing practices and policies were identified as causes that continue to fuel the opioid crisis in Toronto and Ottawa. SIFs, whether legal or not, were consistently portrayed as an essential service to support people who inject opioids and reduce opioid-related hospitalizations and mortality.

Conclusion: SIFs are an important component to a person-centred harm reduction strategy within drug policy. SIFs save lives and reduce burden on community services and hospital emergency departments.

All Authors: Derek Manis, McMaster University; Julia Abelson, McMaster University; Michael Wilson, McMaster Health Forum

ID: 423
Author: Dr. Myuri Manogaran
Title: Interprofessional collaboration as a catalyst to enhancing efficient and effective transitions of neonatal patients from the neonatal intensive care unit
Type of Abstract: Poster

Objectives: As transitions of care (ToC) is a key indicator of the efficiency of the system of health services, this research examined how interprofessional collaboration (IPC) can act as a catalyst for efficient and effective ToC from a high-risk neonatal unit to care back in the community.

Approach: Twelve infants were observed from their admission on the Neonatal Intensive Care Unit (NICU) until their discharge home. The 12 consisted of four patients discharged directly home, four to another unit within the same hospital, and four to another institution. Stage one involved a document analysis of documents related to ToC policy on the NICU. Stage two involved observation. Stage three involved interviews with healthcare professionals (HCPs) in the hospital and community (n=30) and family members (n=12). Stage four consisted of deliberative workshops with hospital management and research participants to share study results and obtain feedback.

Results: Including parents early in the ToC planning process helps parents feel they're a part of the interprofessional care team, in-charge of their infant's care and thus better equipped mentally to handle their infant's ToC. Mechanisms need to be in place to ensure that communication regarding ToC is consistent and clear to and between all HCPs whether in the hospital (e.g. bedside nurse) or in the community (e.g. family doctor). Having a clear understanding of what information should be transferred during a ToC will prevent unnecessary tests and misunderstandings. Increasing HCPs' knowledge of available community resources will aide in transitioning infants to community care and thus freeing bed space and decreasing costs at the hospital.

Conclusion: It is believed that communication and education in an interprofessional context is critical for effective ToC. The interprofessional team should include HCPs on the NICU and in the community as well as the neonate's family members to ensure a seamless transition from the NICU back to the community.

All Authors: Myuri Manogaran, Royal College of Physicians and Surgeons of Canada ; Ivy Bourgeault, University of Ottawa; Thierry Daboval, CHEO

ID: 480
Author: Dr. Myuri Manogaran
Title: The new normal: Employment time lag after specialty medical certification in Canada
Type of Abstract: Poster

Objectives: Despite troubling patient wait lists, a number of newly minted medical specialists in Canada face employment challenges at time of certification. Since 2011, the Royal College of Physicians and Surgeons of Canada (RC) has been examining the breadth of this new phenomenon and underlying causes.

Approach: Data has been collected through online surveys administered to every specialist and subspecialist certified by the RC. Data collection was conducted by way of two separate surveys: 1) A survey (full cohort) issued between 4-12 weeks following the final RC certification examination to all successful certificants. As of 2016, the RC has surveyed over 14,000 new certificants, which over 5,000 responded. Yearly response rates vary from 32%-42%. 2) A follow-up survey sent only to certificants who had reported employment challenges when completing the initial survey. This shorter survey was initiated in 2014 (Average RR approximately 51%).

Results: Between 14% and 18% of newly certified medical specialists in Canada, report not having secured a position 6-24 weeks after confirmation of certification in their field. Most impacted disciplines continue to be those which are resource-intensive, and requiring specialized infrastructure, resources and personnel.

The follow-up survey to the cohort reporting employment challenges, reveal that close to 60% who responded to the survey had managed to secure employment. The time to secure a position varied from 8 to 75 weeks after obtaining RC certification. This survey also revealed that employment in certain disciplines called for additional qualifications beyond certification, such as fellowships, creating an additional barrier to employment post-certification.

Willingness to relocate, additional training, recruiters and contacts were often cited as employment enablers.

Conclusion: Data collection to date has identified patterns related to length-of-time to secure employment and disciplines experiencing employment challenges at time of certification. Ongoing data collection will help monitor the impacted disciplines and identify new trends as part of our efforts to help inform medical workforce and career planning in Canada.

All Authors: Myuri Manogaran, Royal College of Physicians and Surgeons of Canada ; Carole Jacob, ; Danielle Fréchette, Le Collège royal des médecins et chirurgiens du Canada - The Royal College of Physicians and Surgeons of Canada; Shanna DiMillo, Royal College of Ph

ID: 361
Author: Mr. Husayn Marani
Title: Out-of-Pocket Costs incurred by Family Caregivers of Persons Living with Dementia in Canada: A Scoping Review
Type of Abstract: Poster

Objectives: The prevalence and cost of dementia are rising in Canada. However, what these costs are and by whom they are shouldered is largely unclear. This scoping review summarizes evidence on out-of-pocket costs incurred specifically by family caregivers of persons living with dementia (PLWD) in Canada and their policy implications.

Approach: To capture the multidisciplinary nature of dementia studies, four databases (Medline, ProQuest, AMED and Econlit) were searched for English-language articles published between 2000-2017, including scholarly theoretical/empirical papers and grey literature (for example, news articles, government reports, and opinion pieces). Inclusion criteria were: 1) Canadian context; 2) costs must be out-of-pocket, which, by definition, excludes reimbursable/insured costs and opportunity costs; and 3) dementia (or encompassed disease) must be the primary morbidity discussed. Articles meeting these criteria were thematically analyzed by hand.

Results: Overall, this search yielded 418 results. Excluding duplicates and results that did not meet the inclusion criteria yielded 20 results. In summary, the literature demonstrates that family caregivers shoulder the majority of direct non-medical and indirect costs. Severity of dementia is a key predictor of these costs for PLWD in both institutional (long-term) and community (home) care settings. To decrease the financial burden of dementia care on the health system, many provincial governments have implemented aging-at-home strategies to shift costs from historically costly institutional care to community care. In doing so, this has imposed a greater financial burden on family caregivers. Evidence is emerging that family caregivers of PLWD will become significant consumers of the health system as a result of these financial stressors.

Conclusion: As the prevalence of dementia rises in Canada, there is growing interest among policy makers and interest groups in financial risk protection of family caregivers of PLWD. With the recent passing of Bill C-233 (Canada's national dementia strategy), these results are timely and highlight important knowledge gaps and policy implications.

All Authors: Husayn Marani, University of Toronto, Institute of Health Policy, Management and Evaluation

ID: 254
Author: Dr. Emily Marshall
Title: Models and Access Atlas of Primary Care in Nova Scotia (MAAP-NS) Practice Profiles: An innovative approach to iterative knowledge exchange and data collection
Type of Abstract: Poster

Objectives: 1) To share individualized, practice-relevant findings of a census survey and administrative data linkage study of family physicians and nurse practitioners with the study participants. 2) To collect new data from original study participants for interpretation of and comparison to original study results, and to guide future research.

Approach: In collaboration with a graphic designer and a panel of primary healthcare providers, Practice Profiles templates were developed of thematic groupings of Models and Access Atlas of Primary Care in Nova Scotia study (MAAP-NS) findings. Individualized Practice Profile reports were generated that merge MAAP-NS data with the templates to show participants' responses alongside regional- and provincial-level results. The Practice Profiles were sent to all MAAP-NS participants in a series of hard-copy mailouts. Each Practice Profile was accompanied by a short survey questionnaire with items relevant to the Practice Profile theme, to be returned by fax.

Results: A mailout on accessibility was distributed June, 2017 (N=591) and on availability December, 2017 (N=576). Survey response rates were 20.5% (n=121) and 15.4% (n=89), respectively, with no reminders. This poster shares survey results related to accessibility. The percentage of respondents currently accepting new patients unconditionally dropped from 9.6% in the original MAAP-NS study (2014-15) to only 3.3%. Respondents identified the following patient populations as more challenging to accept: those who require opioid prescriptions (40.5%), those with complex mulitmorbidity (28.1%), those with mental health concerns (29.8%), and pre-natal patients (11.6%). The most frequent open-ended responses to why providers find certain patient populations more challenging were: lack of time, lack of resources and referral services for mental health/additions, challenging patient behaviour, and lack of compensation.

Conclusion: Sharing individualized reports of study findings is feasible and well-received by participants. The iterative distribution of Practice Profiles and accompanying questionnaires allows for ongoing knowledge translation and exchange with study participants and incorporation of new questionnaire items responsive to ongoing original study analysis and emergent health system questions.

All Authors: Emily Marshall, Dalhousie Family Medicine; Tara Sampalli, Research, Innovation & Discovery, Nova Scotia Health Authority; Richard Gibson, Nova Scotia Health Authority; Frederick Burge, Dalhousie Family Medicine; Beverley Lawson, Dalhousie Family Medicine

ID: 571
Author: Dr. Ruth Martin-Misener
Title: Partnering with patients and families in decision making and program/service planning processes: Quality and Safety Teams in Primary Health Care in Nova Scotia
Type of Abstract: Poster

Objectives: Partnering with Patient and Family Advisors (PFAs) in decision-making and planning processes in Quality and Safety Teams is a system-level strategy in Primary Health Care (PHC) in the Nova Scotia Health Authority. We present preliminary results regarding the structures and processes that influence their integration in these teams.

Approach: We used focus groups in a descriptive qualitative approach informed by the CIHR Strategy for Patient-Oriented Research Patient Engagement Framework (CIHR SPOR PEF) and Damshroder's Consolidated Framework for Implementation Research (CFIR). Settings included team-based PHC practices from the four provincial Health Management Zones. Participants included managers, clinicians, and PFAs. Our team developed a guide for discussions co-facilitated by a patient investigator and a thematic data analysis plan that included inductive (reading transcripts and discussing key concepts) and deductive (framework constructs mapped) coding approaches. We are also evaluating the impact and influence of patient investigators as members of our research team.

Results: Early results have helped us understand the evolving structure, function and roles of Quality and Safety Teams. Three approaches to Quality and Safety Team formation have emerged: having one Team in each PHC practice, one in each county or network of practices, and one per zone. The proportion of PFAs on these teams ranges from less than 10% to 50% of the membership. Preliminary analyses indicate integration of PFAs is evolving faster in some zones than others, and that thus far study participants feel respected, and that their contributions are valued. Participants identified several facilitators and barriers to the engagement of PFAs as well as examples of health service improvements resulting from their contributions. Some PFAs identified that participation had positively influenced their own health.

Conclusion: Partnering with patients and families to support planning and service delivery is a Triple Aim strategy. Nova Scotia is on a journey to establish a system-wide strategy to partner with PFAs in decision-making and evaluation processes. Our ongoing work will explore participants' perceptions about how outcomes should be measured.

All Authors: Ruth Martin-Misener, Dalhousie University; Tara Sampalli, Research, Innovation & Discovery, Nova Scotia Health Authority; Frederick Burge, Dalhousie Family Medicine; Larry Baxter, Dalhousie University; Janet Curran, Dalhousie University & IWK Health Centr

ID: 431
Author: Dr. Maria Mathews
Title: Away and back again: experiences of Canadians who study medicine abroad (CSA)
Type of Abstract: Poster

Objectives: Why do Canadians choose to study medicine abroad? CSA face many barriers to returning to Canada to complete their post-graduate training and practice? We explore CSA's experiences and describe their reasons for training abroad, how they chose a medical school and the barriers they face trying to

Approach: We conducted a total of 14 semi-structured qualitative interviews with Canadians who study abroad who were in medical school (n=8), currently in a residency program (n=4), or who had completed their training and were working (n= 2). We asked them why they studied medicine abroad, their perception of their undergraduate medical training, and their experiences trying to return to Canada. Interviews were transcribed and coding templates were developed independently by 2 authors. Transcripts were analyzed using a thematic analysis approach.

Results: SA chose to train abroad because they were not admitted to medical school in Canada, wanted direct entry to medical school after high school, or decided to pursue medicine late in their academic career. They chose their medical school based on finances (tuition and travel costs), school and community characteristics (size, language, culture, location), preparation for Canadian residencies (training approach, reputation), and future work options (back-up plans). Returning to Canada demanded co-ordination of scholarly and administrative requirements (scheduling examinations, obtaining security clearances and visa), fulfilling training and licensing requirements in multiple jurisdictions concurrently, overcoming barriers to re-entering the Canadian system (poor information, highly competitive environment, limited electives), and incurring financial and personal hardships.

Conclusion: The increase in the number of CSA creates a number of challenges to the traditional programs and policies related to the training and credentialing of international medical graduates. Our study results identify possible strategies to prevent and address inequities in the post-graduate medical education system.

All Authors: Maria Mathews, University of Western Ontario; Dana Ryan, Memorial University; Ivy Bourgeault, University of Ottawa

Objectives: The objectives of this presentation will be to: 1) demonstrate how to successfully conduct a scoping review with patients; 2) outline the benefits of conducting research with patients; 3) share lessons learned from both the researcher and patient perspective and, 4) and share some practical tips for success.

Approach: The scoping review was designed using a recognized methodology and co-designed with patient at each stage of the process. The objective was to gather and appraise all available published literature to report: (i) the methods health systems use to deliberately invest in patients; and (ii) to report outcomes of these investments from either the perspective of the health system and/or patient. The question guiding the review was: How do health systems deliberately invest in patients and what are the outcomes of these investments? We systematically searched 6 electronic databases between January 2000 and present.

Results: In order to set the project up for success, the researcher provided an overview of the desired objectives of the scoping review and the patient and researcher co-designed the project plan, clarified participant roles and reviewed the initial inclusion/exclusion criteria. Initially, the role of the researcher was to assist the group to develop what was needed to work together.   Trust was achieved by face-to-face meetings and engaging the group in project details early on. As the project progressed, the role of the researcher transitioned as patient's gained confidence in their ability to conduct the review. Kappa levels between research and patient co-investigator we high. Co-design is an effective method for engaging patients and set the standard for the rest of the study.

Conclusion: Engaging patient's is an important and emerging field in health research and it is essential for health systems to find innovative methods like co-design, to include the patient voice as early as the evidence synthesis phase.

All Authors: Tamara McCarron, University of Calgary - Cumming School of Medicine; Karen Moffat, N/A; Sandra Zelinsky, The Methods Hub; Gloria Wilkinson, N/A

ID: 492
Author: Dr. Deirdre McCaughey
Title: Retail Health Clinics: Are They Shaping Tomorrow's Healthcare System?
Type of Abstract: Poster

Objectives: Found in major chain stores, retail health clinics (RHCs) are a quick stop for preventative care and minor acute conditions. This care delivery model has garnered interest among stakeholders in the healthcare industry. To examine the impact on patient access and outcomes, this study reviews research examining the RHC industry.

Approach: A systematic literature review was conducted using the online databases ProQuest and PubMed. Initial inclusion criteria examined the varying facets of the RHC industry (n=246). The abstracts were reviewed with the research team and criteria for inclusion was narrowed to clinic setup, cost, quality, care delivery model, and clinic operation. This allowed the themes of strategic position and operations of RHCs to emerge with a final yield of n=35. Due to its extensive presence in healthcare, the Triple Aim framework guided the categorization of the findings into better care, better population health, and lower care costs.

Results: Our study highlighted the rising affinity for RHC services among primarily younger and healthier individuals. According to our findings, convenience and proximity to RHCs are leading factors for clinic use. Additionally, RHCs have received relatively high consumer satisfaction ratings and the quality of care in RHCs was shown to be comparable to alternative care settings, such as physician practices. An additional touted benefit of RHCs is their availability as an alternative to the emergency department (ED); access and availability of these clinics in non-traditional hours should redirect non-emergent ED users to clinics. This claim was not supported by the literature as there was scarce evidence on whether RHCs deter unnecessary visits to emergency departments or how they contribute to managing care across the continuum.

Conclusion: Our study showed RHC use is increasing among relatively healthy community dwelling individuals. This innovative care model shows potential for preventing unnecessary ED utilization through the provision of timely, low cost care for minor conditions. RHCs show promising results for providing greater care access without compromising care quality.

All Authors: Deirdre McCaughey, Cumming School of Medicine, University of Calgary; Gwen McGhan, Faculty of Nursing, University of Calgary; Catherine Baumgardner, Pennsylvania State; University College of Health and Human Development; Samantha DiMeo, Deloitte Consult

ID: 282
Author: Dr. Ted McDonald
Title: Explaining maternal complications after Caesarean Section: Results from a population-based study
Type of Abstract: Poster

Objectives: To describe associations between post-operative maternal complications and provider caseload volume, provider years since graduation, and provider specialization, adjusted for hospital volume and a series of patient characteristics and indications.

Approach: Our analysis uses population-based discharge abstract data linked to patient and physician registry data. We consider all admissions that included a C-Section surgery in the province of New Brunswick, Canada during the period of April 2004 to March 2014. We defined provider volume as the yearly average number of C-Sections performed in the previous two years, and further adjusted for the number of years since the physician graduated and the physician specialty being other than maternal-fetal medicine or obstetrics and gynecology. We ran logistic regression models to identify the odds of occurrence of post surgical complications during the hospital stay

Results: Approximately 21,000 patients were admitted for C-Sections in New Brunswick over the 10-year period, of whom 2.6 percent had at least one of the following complications: disseminated intravascular coagulation, postpartum sepsis, postpartum hemorrhage, and

postpartum infection. After accounting for a range of personal and system-level potential confounders, the likelihood of complication was negatively associated with provider volume and provider years of experience, and positively associated with having a specialization other than maternal-fetal medicine or obstetrics and gynecology.

Conclusion: Our results suggest that measures of physician training and

experience are associated with C-Section surgical outcomes after adjusting for patient attributes including comorbidity, diabetes in pregnancy, and socio-demographics.

All Authors: Ted McDonald, University of New Brunswick; Philip Leonard, University of New Brunswick; Daniel Crouse, University of New Brunswick; Neeru Gupta, University of New Brunswick; Jonathan Boudreau, University of New Brunswick

Author: Ms. Ally Memedovich

Title: Legislation regarding drug pricing and rebates in Canada
Type of Abstract: Poster

Objectives: Canada has the second-highest per-capita spending for pharmaceuticals internationally. Rebates provided by the pharmaceutical industry, however, does not allow for an accurate account of actual spending for pharmaceuticals. The purpose of this research is to understand the specific legislation regarding pharmaceutical rebates and pricing across Canada.

Approach: The Canadian Legal Information Institute (CanLII) website was searched. "Drug pricing," "drug rebates," "pharmaceutical pricing," and "pharmaceutical rebates" were used as search terms. All provincial, territorial, and federal legislation was searched. Any legislation or regulation that defined list price, actual price, or rebate, or outlined pricing regulations for pharmaceuticals was included. Relevant information from the legislation was extracted by one reviewer. The province, name of the act, and year the legislation was enacted or amended were recorded, along with the regulations and relevant subsections. Definitions were then compared from each legislation regarding list price, actual price, and rebate.

Results: Of the 33 identified legislation, nine were relevant; two Federally, two from Ontario and Quebec each, and one from each of British Columbia, New Brunswick, and Nova Scotia. Five of the identified legislation were amended in 2017; the others were amended in 2016 or 2013. Of the included legislation, three defined list price, three defined rebates, and one defined actual price. Only the Prescription Drug Payment Act from New Brunswick defined all three. None of the Federal or legislation in Quebec defined any of the concepts. The Federal Patent Act outlines what factors should be considered when determining pricing, and guidelines companies should follow. There are no explicit regulations for rebates in any of the legislation.

Conclusion: There is only one Federal legislation specifically regarding pharmaceutical pricing in Canada, but none regarding rebates. This leads to variable listing negotiations, pharmaceutical prices, and rebates across Canada, complicating an estimate for the actual price spent on pharmaceutical annually.

All Authors: Ally Memedovich, Health Technology Assessment Unit, University of Calgary; fiona clement, University of Calgary; Aidan Hollis, University of Calgary; Braden Manns, University of Calgary; Reed Beall, University of Calgary

Objectives: The past decade has seen major efforts to better integrate mental health and addictions (MHA) services within primary care, yet there is little consensus on how to measure integrated care. We aimed to identify instruments used by clinicians to assess the integration of MHA services within primary care.

Approach: We conducted a systematic review of published and grey literature. We searched Medline, Embase and PsycINFO using keywords related to the concepts of "primary care", "mental health", "integrated care" and "instrument". We also performed keyword searches in Google and examined the websites of international organizations interested in integrated care. Our database search retrieved 3589 citations, which were independently screened by two review authors using predetermined criteria. Analysis of eligible instruments was guided by a conceptual framework (Rainbow model of integrated care), which described seven dimensions of integrated care (clinical, professional, organizational, systemic, functional, normative, and patient-centered care).

Results: We identified 54 instruments measuring MHA care integration from the perspective of clinicians. The majority of instruments were questionnaires or scales targeting primary care providers specifically. We found no instruments exclusively targeting integration of addictions care within primary care. The integrated care dimensions most represented in the instruments were clinical (e.g. screening practices, case management, referrals) integration and professional (e.g. interprofessional communication and collaboration, co-location) integration whereas fewer items related to the systemic (e.g. regulations, advocacy) and normative (e.g. shared values, leadership for integrated care) dimensions of integrated care. Similarly few tools included items related to person-centered care (e.g. engagement in care planning, supports for self-management, coordination of family supports) and even fewer tools were developed in partnership with MHA service users.

Conclusion: This systematic review provides valuable information on the range of instruments and measures that can be used to assess the integration of mental health and addictions services in primary care, and will inform the development of more comprehensive instruments that cover more dimensions of care integration.

All Authors: Matthew Menear, Laval University; Maman Joyce Dogba, Université Laval Département de médecine familiale et de médecine d'urgence; France Légaré, Laval University; Jean-Sébastien Renaud, Laval University; Annie Poirier, Laval University; Mélissa Baillargeo

Author: Ms. Ashleigh Miatello

Title: Harnessing experiences of youth, family members and service providers for co-designing health system improvements: The case of care coordination in youth mental health services in Hamilton, Ontario

Type of Abstract: Poster

Objectives: Empowering youth, family members and service providers in health system redesign and improvement is a key objective of Experience-Based Co-Design (EBCD). EBCD identifies powerful experiences in the journey through health services – termed touchpoints – from the three perspectives, who subsequently work together to co-design improvements to enhance experiences.

Approach: We held a co-design event in July 2017 to improve coordination of care in youth mental health services in Hamilton, Ontario. Three touch points were identified to co-design based on data collected via interviews and the suite of myEXP smartphone and web apps designed to gather service experiences. Co-design sessions involved, separate groups of youth (n=5), family members (n=6) and service providers (n=6) tackling one touchpoint. This involved: (i) exploring WHY the problem exists, (ii) brainstorming potential solutions, (iii) combining and prioritizing solutions; and (iv) developing initial prototypes. The other two participant groups then enhanced these prototypes during plenary discussions.

Results: Three prototypes were designed which included: (1) a digital quality improvement tool containing questions from the youth perspective about experiences following each appointment to be used by agencies and providers in an effort to be more responsive to youth needs; (2) a model of peer support for families and youth while in hospitals, providing advocacy, facilitating communication and providing emotional support; and (3) a multilayered solution including care coordination, funding to support collaboration across lead and community agencies, hospitals, schools, primary care with youth and families at the centre of the model and a web portal to facilitate information sharing.

Conclusion: The EBCD approach appears to be highly effective in co-creating service improvements that have buy-in from all three perspectives. The EBCD process shows promise in fostering mutual understanding and balancing power across perspectives. EBCD may also offer policy makers a way of harnessing patient experience for use in policy.

All Authors: Ashleigh Miatello , McMaster University ; Gillian Mulvale, McMaster University; Christina Hackett, McMaster

ID: 536
Author: Ms. Ashleigh Miatello
Title: Co-Designing Services for Youth with Mental Health Issues: Novel Elicitation Approaches
Type of Abstract: Poster

Objectives: Experience-based co-design (EBCD) is an approach to health system change that employs unique elicitation strategies such as experience mapping, trigger videos and prototype development to engage service users and service providers in a collaborative process of identifying emotive moments in care called touchpoints and solutions to system level problems.

Approach: In this paper, we present findings from three co-design projects designed to address either mental health or employment services for youth (aged 16-24) with mental health issues in one urban centre (Hamilton, Ontario). Interviews and surveys were conducted with 17 participants (3 youth, 7 service providers, 5 family members and 2 employers) to explore their perceptions of three elicitation techniques: creating experience maps, creating and viewing trigger videos and co-designing visual "prototype" solutions. Using interpretive description, we explored participants' perspectives about these techniques across the three studies.

Results: Bringing together stakeholders from different perspectives was a powerful strategy to build mutual understanding and ideas for change that were grounded in the experiences of both service providers and service users. The relational nature of the EBCD processes means these techniques must be positioned within a social, spatial and temporal context that optimizes their value. This creates 'a safe space' within which the essential elements of elicitation – building trust, finding voice, sharing perspectives and creating a common vision – can occur within progressive, overlapping processes of co-design elicitation. Three core processes were identified: "building common perspectives", "building mutual understanding" and "building innovation". We present a conceptual framework that demonstrates how effective elicitation within the EBCD process can lead to individual and systems change.

Conclusion: When working with vulnerable populations such as youth with mental health issues, optimizing the implementation and impact of novel elicitation techniques requires understanding the key elements of the process and skilled application to address group dynamics and share diverse viewpoints to move to a collective vision for system change.

All Authors: Ashleigh Miatello , McMaster University ; Gillian Mulvale, McMaster University; Sandra Moll, McMaster University; Louise Murray-Leung, Lynwood Charlton Centre; Karlie Rogerson, McQuesten Youth Opportunity Creators ; Roberto Sassi, McMaster University

ID: 339
Author: Mr. Raymond Milan
Title: The influence of side effects on adherence to antidepressants among older adults
Type of Abstract: Poster

Objectives: The aim of this study was therefore to evaluate the influence of SE on adherence to AD, regardless its indication, among older adults in Quebec

Approach: Data were retrieved from the Étude sur la Santé des Aînés – Services study, conducted in 2011-2017 using a large sample of older adults (n=1811) aged 65 years or older waiting for medical services in primary health clinics in Quebec. SE related to AD were self-reported using a list of 20 possible SE. Medication adherence was measured with the 8-item Morisky Medication Adherence Scale and those with a score ≥6 were considered adherent. Participants treated with at least one AD were included in the study (N=139). Multivariable logistic regressions were carried-out while controlling for socio-economic, clinical and psychosocial factors.

Results: 92% of participants were adherent to their antidepressants. 76% experienced at least one side effect and only 19% of SE were considered bothersome. Female participants were less likely to reported sexual dysfunction (OR=0.049, 95%CI: 0.010-0.238). However, the type, the number and the severity of side effects were not associated with non-adherence to antidepressants.

Conclusion: Seniors are more aware of the benefits of adhering to antidepressants. An improvement in communication on potential SE between healthcare professionals and patients before initiating treatment may explain the lack of significant association between SE and adherence to AD.

All Authors: Raymond Milan, Université de Sherbrooke; Helen-Maria Vasiliadis, Université de Sherbrooke

ID: 556
Author: Dr. Mary Modayil
Title: Meeting the unmet needs of older adults and their caregivers through evaluation of a chronic disease self-management program
Type of Abstract: Poster

Objectives: Although evidence supports the use of self-management as a strategy to live with chronic conditions, it is unclear whether these self-management programs are acceptable for diverse chronic conditions and whether completion rates differ by workshop mode (in person or online).

Approach: A standardized self-management program was offered to provincial participants via in-person and online formats. The program employs action planning, decision support tools, and social support for change. Using program evaluation, we examined characteristics of participants who completed this program, highlighting characteristics that improve acceptance and completion of this program. The program's logic model was used as a framework to design survey questions. We supplemented this with interviews and focus groups with participants. An emergent-systemic focus group design was used to assess participant perceptions. Participants who completed the baseline evaluation survey differed by geographic area (urban/rural) and workshop mode.

Results: We received 775 baseline surveys, 336 six-week surveys and 219 six-month surveys from participants. The average survey respondent was 56 years old and an urban dweller living with a chronic condition for six or more years. Top chronic conditions reported were chronic pain (63.0%), mental health (26.4%), obesity/weight management (19.9%), diabetes (19.2%) and cardiac conditions (17.8%). A validated instrument measured patient reported outcome measures: 1) 88% of patients reported pain - of these, almost 40% experienced a severe condition; 2) 78% of patients reported anxiety/depression – with almost 20% experiencing a severe condition. The online format provided an opportunity for individuals experiencing mobility and transportation. Participants cited several barriers to completing the program including health, scheduling and workshop related concerns.

Conclusion: Compared to the general population, our participants experienced significantly more difficulties in daily functioning. Women reported experiencing more chronic conditions on every dimension of reported health outcomes than men. Understanding the unmet needs of participants provincially will continue to be examined as areas for program improvement.

All Authors: Mary Modayil, Alberta Health Services; Judith Krajnak, Alberta Health Services; Katya Chudnovsky, Alberta Health Services; Michele Lamont, Alberta Health Services

ID: 434
Author: Dr. Stephanie Montesanti
Title: Patients as Partners: Findings from a Primary Health Care Engagement Project to Explore Albertan Values on Patient Attachment and the Health Home Model
Type of Abstract: Poster

Objectives: In collaboration with partners, IMAGINE Citizens Collaborating for Health (IMAGINE) led a primary health care project to engage Albertans and seek insight and input into the concepts of attachment and health home in the context of Alberta's primary healthcare system.

Approach: IMAGINE carried out a three-week recruitment campaign intended to reach a diverse range of Albertans (ages 18-75) across the province. Equity and inclusion criteria were considered in the selection of participants. The project brought together 31 diverse Albertans from across the province through a focused, in-depth, engagement process. It consisted of three participant-wide webinars or teleconferences, one-to-one qualitative interviews and a participatory, citizen dialogue. The project team facilitated two debrief teleconferences with participants after the dialogue, and administered a post-dialogue follow-up questionnaire to the participants one week after the dialogue using Survey MonkeyTM.

Results: Insight into participant understanding and awareness of foundational project concepts was assessed. Participants were generally aware of the terms primary care, primary healthcare and primary care networks but unable to articulate clear definitions or distinctions of the terms. Most were unfamiliar with the new concepts of attachment and health home. Engagement methods used in the project revealed three key elements of a health home and attachment (information access and sharing, ease of navigation and, relationships and trust), all captured within a broader desired outcome of continuity of care; information access and sharing, ease of navigation, and, relationships and trust.

Conclusion: Patients as partners is the foundation of building a health home and uses the building blocks of community-based and individualized approaches and culture transformation. Participant evaluations of the citizen dialogue demonstrate strong support for the use of this type of engagement method.

All Authors: Stephanie Montesanti, School of Public Health, University of Alberta; Don McLeod, Imagine Citizens Collaborating for Health; Judy Birdsell, Imagine Citizens Collaborating for Health; Gail MacKean, University of Calgary

ID: 408
Author: Mr. Khalil Moqadem
Title: Reflective approach, audit & feed-back and learning systems applied to chronic disease management: a literature review
Type of Abstract: Poster

Objectives: Chronic diseases conditions represent a growing challenge for healthcare system. Our aim was to identify some emergent approaches put in place in other jurisdictions to improve the management of chronic diseases. Particular attention was paid to: 1) reflexivity practice, 2) audit & feed-back and 3) the learning systems approach.

Approach: We searched PubMed, Embase and the Cochrane Library for relevant studies particularly systematic reviews, guidelines and action plans. During the grey literature search all the major international governmental agency websites were screened for eligible guidelines and action plans. The quality of the retrieved studies was assessed qualitatively. Additional information was retained from a one-day workshop involving experts from Quebec and Ontario in order to enrich the findings of the literature review. The data synthesis was done narratively, and a conceptual model was constructed.

Results: Our analyses confirm the importance of addressing the following aspects when implementing a quality improvement strategy: 1) cultural and organizational factors; 2) technological factors (data availability and management); and 3) human factors (especially the perception of the use of new technologies and the motivation of clinicians, administrators and patients). Improving care for chronic diseases through a review of procedures by questioning each process on an ongoing basis—appears to be essential. The 3 studied approaches seem to be promising, but a stronger demonstration of the evidence is necessary. We propose a model in which the 3 approaches could be integrated and jointly implemented: the learning systems approach, audit and feedback, reflective practices. This model takes advantage of the increasing availability of data and technologies.

Conclusion: Improving the management of chronic conditions, particularly multimorbidity, through learning health systems, audit and feedback, and reflective practice, is both promising and challenging. We suggest that combining the 3 approaches could represent the most promising alternative.

All Authors: Khalil Moqadem, INESSS : Institut national d'excellence en santé et en services sociaux; Marc-André Blanchette, INESSS; Olivier Demers-Payette, INESSS; Matthew Menear, INESSS

Objectives: Opioid morbidity and mortality is a significant public health issue. While there have been many studies showing that illicit opioid use is linked to material and social marginalization, little is known about how social determinants of health influence a provider's decision to prescribe opioids in Canadian primary care.

Approach: We will use cross-sectional data from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), a national repository of EMR data. The study population will consist of any patient 18 years and older who visited their primary care provider between 2014 and 2016. The primary outcome is an opioid prescription (yes/no) during an encounter with the primary care clinic. The social deprivation score, material deprivation score and combined material and social deprivation score (determined through postal code linkage to census areas) will be used as the main predictors in the logistic regression model. We will control for chronic diseases, including cancer.

Results: In progress.

Conclusion: Evaluating opioid prescribing practices in primary care is an important step to understanding where to target education and intervention efforts to ensure appropriate use of this drug.

All Authors: Rachael Morkem; David Barber, Queen's University; John Queenan, Queen's University

Title: Operationalizing Experience-Driven Innovation through Integration of Peer Support in Clinical Mental Health Systems in Canada and Norway
Type of Abstract: Poster

Objectives: Policymakers call for mental health systems design informed by patient experience. Peer support programs can incorporate lived experience into clinical settings, while improving quality of life and reducing hospitalizations. How to effectively integrate peer support workers into the existing spectrum of health professionals and create supportive organizational contexts is unclear.

Approach: A collaboration among researchers in Norway and Canada is exploring the policy, organizational, personal characteristics, and change management processes required to support successful integration of peer support workers within clinical mental health care settings in each country using a case study approach. The case is defined as the integration of formalized/intentional peer support services within clinical services delivered in hospital, primary care and community settings. In Ontario, key informant interviews and focus groups were carried out with 30 participants (peer support providers, clinical managers and staff, people receiving peer support services and policy makers) in Ottawa and Hamilton, Ontario.

Results: Distinct organizational and team cultures between hospitals, and between hospitals and Assertive Community Treatment teams influence the peer support worker roles, information and communication with clinical colleagues, and acceptance of the peer support role. In some contexts, clinical staff members are strong advocates for and protective of peer support workers, while in others there is limited trust, which restricts the nature of peer support programming offered. Issues such as funding, remuneration, certification, accreditation of training programs and training needs, as well as the need to educate clinical staff on peer support roles are discussed. We present a conceptual framework of factors at the individual, hospital/care team, organizational, LHIN and provincial policy levels as well as promising change management approaches to support peer support integration.

Conclusion: Successful peer support worker integration in clinical settings requires a thoughtful and staged implementation approach by managers that attends to contextual considerations. Training and education is needed at all levels to facilitate better integration, communication and decision making at all levels of program delivery, planning and policy making.

All Authors: Gillian Mulvale, McMaster University; Fiona Wilson, St. Joseph's Healthcare; Jenn Green, McMaster University

ID: 599
Author: Dr. Gillian Mulvale
Title: Co-designing health and social services with vulnerable and disadvantaged populations: Insights from an International Collaboration
Type of Abstract: Poster

Objectives: A stated vision of governments around the globe is the need to incorporate user experience in the co-production of public policies. However, realizing this vision in practice remains challenging especially for vulnerable groups. Experience-based Co-Design (EBCD) is a promising approach, which has been effectively used in healthcare and social services.

Approach: In December 2017, we hosted an international symposium in Birmingham England that brought together leading researchers in EBCD methods and other approaches for involving user experience in co-production, as well as service users, service providers, and family members. Participants included representation from countries within which EBCD methods have been developed or are actively being pursued, including Canada, the United Kingdom, Australia, the United States, and Sweden. Using co-design techniques, participants presented 11 case examples of co-production of health and social services for vulnerable and marginalized groups and worked collaboratively to develop prototypes to better engage these groups in co-production.

Results: A number of common challenges were identified. Health considerations were notable in the cases involving youth and adults with mental health issues and personality disorders, and funding challenges were noted in four of the cases. All but one sub-case described challenges with initial engagement and/or keeping participants engaged over the course of the project. A number of studies identified situations where power differentials presented challenges to effective co-design of service improvements. In several sub-cases, the vulnerable health state of participants affected participation in co-design processes. Some service users faced economic and other social challenges to participating, such as difficult home circumstances, being homeless or precariously housed. Working with vulnerable and disadvantaged populations was also seen to be highly resource intensive.

Conclusion: Engagement and power differentials need attention when co-producing public services for vulnerable populations. Greater emphasis on implementation and evaluation will help demonstrate effectiveness. Strategies to overcome stigma, create safe spaces and support traumatized participants, can better engage civil society in designing public policies for all citizens, including those most vulnerable.

All Authors: Gillian Mulvale, McMaster University; Ashleigh Miatello , McMaster University ; Samantha Brandow, McMaster University; Sandra Moll, McMaster University; Mark Embrett, St. Francis Xavier University

Objectives: The ultimate goal of this research project is to improve Canadian Armed Forces (CAF) veterans' health and well-being by improving the match between care needs and the allocation of health services. To accomplish this, the characteristics of high users of primary health care services among CAF veterans will be examined.

Approach: Quantitative analysis will be conducted on the cross-sectional 2016 Life After Service Survey, which is nationally representative of over 56,000 CAF veterans. It contains valid and reliable self-reported data on health, disability, and the determinants of health using questions from Canadian population health surveys. Descriptive statistics of the characteristics of high users (top 5%), other users, and non-users of primary health care services, measured as self-reported family doctor visits in the previous 12 months, will be calculated. Multivariate logistic regression modeling will also be used to identify predictors. Statistical analysis will be conducted using SAS University Edition.

Results: Anticipated results for the descriptive correlations are that high users will be worse off for many health and well-being indicators compared to non-high users. Predictive modelling will indicate the most important predictive characteristics and determinants of being a high user. Selection of variables for analysis will be based on the Veterans' Well-Being Conceptual Framework, which covers characteristics from seven interdependent domains of well-being, including employment or other meaningful activity, finances, health, life skills and preparedness, social integration, housing and physical environment, and cultural and social environment.

Conclusion: The findings from this research will identify priority areas of health and the determinants of health in which interventions should be targeted among CAF veterans, with implications to inform health care policy that will help ensure that the right veteran receives the right care at the right time.

All Authors: Ryan Murray, University of New Brunswick; Emily Read, University of New Brunswick; William Montelpare, University of Prince Edward Island

Title: Health Services Use Associated with Alcohol Use Disorders: A retrospective cohort study using linked administrative data
Type of Abstract: Poster

Objectives: To determine patterns of health services use among individuals with a physical and/or mental health diagnosis due to harmful alcohol consumption over a 25 year period: from 5 years before receiving the diagnosis to 20 years after receiving the diagnosis.

Approach: We used total population administrative data from the Manitoba Population Research Data Repository. We identified all residents with an ICD-9-CM or ICD-10-CA code for a physical/mental health condition due to harmful alcohol consumption – cases – between April 1, 1990 and March 31, 2015. We matched cases at time of diagnosis to individuals without an alcohol diagnosis based on age, sex, postal code, and socioeconomic status. Generalized linear models compared rates of hospitalizations, ambulatory visits, and emergency department visits between cases and matches from 5 years before diagnosis to 20 years after, adjusting for time-varying mental health comorbidities and region.

Results: 53,356 individuals received a diagnosis due to harmful alcohol consumption during the study period: 35.6% female and 64.4% male. When compared with matches, cases spent between 36 and 40.1 additional days in hospital, had between 74.1 and 41.8 additional ambulatory visits, and between 7.9 and 12.1 additional visits to the Emergency during the 20 years after diagnosis. After adjustment, we found that cases had a spike in hospitalizations (Adjusted Rate Ratio (ARR) 4.5; 95% CI 4.4 to 4.7) and ambulatory visits (ARR 1.9; 1.9 – 2.0) during the year of diagnosis; cases had a spike in emergency department visits in the year before diagnosis (ARR 3.6; 3.2 – 3.9). Elevated rates of system use persisted for all three indicators throughout the 20 years after diagnosis.

Conclusion: Individuals' outcomes associated with harmful alcohol consumption manifest even before receiving an official diagnosis. These contacts with the system may offer a touch point to connect them with cross-sector services to better support their mental health.

All Authors: Nathan Nickel, University of Manitoba; Okechukwu Ekuma, Manitoba Centre for Health Policy; James Bolton, University of Manitoba; Christine Leong, University of Manitoba; Geoffrey Konrad, University of Manitoba; Michael Paille, University of Manitoba; Leon

ID: 618
Author: Dr. Nathan Nickel
Title: Prescription pharmacotherapy for alcohol use disorder in Manitoba: a drug utilization study
Type of Abstract: Poster

Objectives: To examine the pattern and extent of prescription medications used for AUD in Manitoba from 1996 to 2015.

Approach: This was a retrospective population-based cohort study to examine the annual incidence and prevalence of the use of medications with an approved indication for AUD (naltrexone, acamprosate, disulfiram) between 1996 and 2015 among Manitobans aged 12 years and older with AUD., The rate of AUD medication initiation one year following AUD diagnosis, the 6-month medication possession ratio (MPR), and the characteristics of those who were more likely to receive AUD medication were also determined. Data was obtained from the administrative database at the Manitoba Centre for Health Policy.

Results: Only 1.32% of individuals with AUD (N=37,389, mean age 40 years) received at least one prescription for an AUD medication during the study period, Naltrexone (0.82%) was the most commonly used medication, followed by acamprosate (0.52%) then disulfiram (0.08%). While the use of naltrexone peaked at 1.61% in 2005/06, the rate of use is increasing from 2006/07 onwards. The rate of acamprosate use peaked at 1.08% in 2009/10 and has been decreasing since. Those diagnosed with mood and anxiety disorder and urban dwellers were more likely to receive AUD pharmacotherapy. Only 0.57% received AUD pharmacotherapy within the first year of diagnosis. The majority of individuals who received AUD medication had a 6-month MPR of < 0.5 (63.69%) indicating poor adherence.

Conclusion: AUD medications are extensively underutilized despite the evidence supporting their efficacy in the management of AUD. The low rate of use of these medications may reflect barriers to access (e.g., systems to obtain coverage) and perceptions of the providers and the public for using pharmacotherapy to treat AUD.

All Authors: Nathan Nickel, University of Manitoba; Christine Leong, University of Manitoba; Michael Paille, University of Manitoba; Geoffrey Konrad, University of Manitoba; James Bolton, University of Manitoba; Deepa Singal, British Columbia Academic Health Sciences

ID: 441
Author: Ms. Lucia Otero Varela
Title: Empowering knowledge generation: the IMeCCHI-DATANETWORK
Type of Abstract: Poster

Objectives: The International Methodology Consortium for Coded Health Information (IMeCCHI) is a collaboration of health services researchers who promote methodological advances in coded health information. The IMeCCHI-DATANETWORK initiative focuses on developing a multi-purpose distributed data infrastructure and common data model (CDM) to enable cross-border data sharing and international comparisons.

Approach: Six current partners of the IMeCCHI consortium – Canada, Denmark, Italy, New Zealand, South Korea, and Switzerland – conducted a descriptive survey on routinely collected administrative health databases locally available for international comparisons. They illustrated that these original databases were different in size, structure, content and coding systems or terminologies. To standardize data, they agreed on a CDM and mapped their population-based databases to meet the CDM specifications. At the end of this process, local data had a more homogenous content and structure, which made them syntactically and semantically interoperable.

Results: The CDM encompasses 4 tables of structured data – person, hospitalization, drugs and death –, linked at the individual level through a person identifier. It can be used to answer several research questions across countries using locally converted databases, which facilitates study replication in a distributed fashion. As a proof-of-concept study, a first research question regarding 'quality of care for hip fracture' was addressed using an agreed protocol. In 3 countries the local data were transformed in csv files in the CDM structure and a data management software, called TheMatrix, was tested to transform the standardized data from each partner into local analytical datasets. This allowed sharing results at the international level about 31,686 patients, but maintaining local control over local data.

Conclusion: The IMeCCHI-DATANETWORK, a model of a distributed data network, demonstrated that it is feasible to analyze each country data using standardized analytical methods independently without relocating datasets to protect privacy, and multi-country results could be assembled to generate knowledge.

All Authors: Lucia Otero Varela, University of Calgary; Hude Quan, University of Calgary; Amy Metcalfe, ; Mingkai Peng, University of Calgary; Cathy Eastwood, University of Calgary; Hongsoo Kim, University of Harvard; Pia Kjær Kristensen, Aarhus University; Phil Hider

ID: 538
Author: Ms. Lucia Otero Varela
Title: ICD-coded data features and coding training worldwide
Type of Abstract: Poster

Objectives: The International Classification of Diseases (ICD) is globally used for coding morbidity statistics, however, its use, as well as the training provided to individuals assigning codes, varies greatly across countries. Therefore, the goal is to characterize ICD-coded data collection and understand the quality of coder training worldwide.

Approach: After an in-depth grey and academic literature review, an online survey was created to poll the 194 World Health Organization (WHO) member countries. Questions focused on hospital data collection systems and the training provided to the coding professionals. The survey was distributed, using different methods, to potential participants that meet the specific criteria, as well as to organizations specialized in the topic, such as WHO-CC (WHO Collaborating Centers) and IFHIMA (International Federation of Health Information Management Association), to be forwarded to their representatives. Answers will be analyzed using descriptive statistics.

Results: This ongoing project aims to capture responses from as many countries as possible, and thus far, data from 39 respondents from 17 different countries has been collected. Initial results reveal worldwide use of ICD, with variations in the maximum allowable coding fields for diagnoses and interventions. Coding specialists are the main personnel assigning codes, followed by physicians, and although minimum training is not mandatory in all countries (Sweden, Italy, Germany and Thailand), in those where it is, college/university degree is the most common requirement. Coding certificates most frequently entail passing a certification exam. Continuing education for coders is offered in all countries except one (Nigeria). Once more information is available, countries will be ranked and those depicting a better performance will be highlighted.

Conclusion: These survey data will establish the current state of ICD use and coding training internationally, which will ultimately be valuable to the WHO for the promotion of ICD and the rollout of ICD-11, for better international comparisons of health data, and for further research on how to improve ICD coding.

All Authors: Lucia Otero Varela, University of Calgary; Cathy Eastwood, University of Calgary; Hude Quan, University of Calgary; Pallavi Mathur, University of Calgary

ID: 275
Author: Dr. Kelly Penz
Title: Testing a Model of Competence and Confidence in Rural/Remote Nursing Practice: An Interplay of Exposure/Experience, Work Environment, Community and Professional Wellbeing
Type of Abstract: Poster

Objectives: A measurement model was developed to test rural and remote nurses' level of competence and confidence in their practice, which were grouped into six categories: 1) education/experience, 2) the rural work environment, 3) perceptions of the work community, 4) perceived stress, 5) work engagement, and 6) burnout.

Approach: Using Structural Equation Modeling, we empirically tested our model using data from the cross-sectional pan-Canadian Nursing Practice in Rural and Remote Canada II (RNNII) Survey. Based on a target sample of more than 10,000 regulated nurses (i.e., RNs, NPs, LPNs, RPNs) across Canada, there were a total of 3,822/9,622 eligible participants, for a response rate of 40%. Included in the current analysis were a subsample of 2,065 Registered Nurses (RNs) and Nurse Practitioners (NPs) involved in direct patient care.

Results: The complexity of competence and confidence in rural nursing practice was evident, being influenced directly and/or indirectly by level of exposure to rural nursing, experience in nursing over time, characteristics of the rural work environment, community factors, and indicators of professional wellbeing. The final model explained 53% of the variance in rural nursing work confidence, 17% of the variance in rural nursing work competence, 40% of the variance in work engagement, 39% of the variance in burnout, and 15% of the variance in perceived stress. A particularly important contribution of this study is the understanding it provides of the combined effects of nurses' environments (workplace and community) and psychosocial factors upon their confidence and competence to practice.

Conclusion: The quality of care that is provided to rural peoples is highly dependent on the support and development of rural and remote nurses' confidence and competence in their roles. Multivariate analyses of similar constructs beyond the organizational/work environment are necessary to further understand the complexity of rural nursing practice.

All Authors: Kelly Penz, College of Nursing, University of Saskatchewan; Norma Stewart, University of Saskatchewan; Chandima Karunanayake, Canadian Centre for Health and Safety in Agriculture, College of Medicine, University of Saskatchewan; Julie Kosteniuk, Universit

ID: 494
Author: Mrs. Marie-Pascale Pomey
Title: The Partnership Co-Design Lab : A methodology to Co-construct intervention with patients and evaluate them
Type of Abstract: Poster

Objectives: After traumatic amputations occurring in the upper extremity, postoperative adherence to rehabilitation protocols represents one of the main determinants of a functionally successful reimplantation. The CHUM noted a significant difference in the rates of adherence to rehabilitation intervention between patients followed at the CHUM and those transferred to other rehabilitation

Approach: The Montreal university health Centre (CHUM) has initiated an innovative project aimed at creating a new model of intervention based on the involvement of patient advisors (PA) in the development of care partnerships. To develop this intervention and be able to evaluate it, we have created a methodology to involved patients based on three main roots: the patient partnership paradigm, the Living lab concept and, the co-design method.

Results: The Partnership Co-Design Lab (PCDL) is divided into five phases, the last one transcends the others:

1) identification of need through a common understanding with patients, researchers, clinical teams, managers and decision-makers;
2) design of the idea through a vision, scriptwriting thanks to focus groups;
3) co-design and evaluation of a pilot project with PA to identify the selection criteria for the PA, when they will intervene, which themes they will discuss, the dimension sensible to the intervention;
4) co-design and evaluation in the real life thanks to a pragmatic trial designed with PA;
5) improvement, change management, perennity, and sustainable partnership to create and assess the peer support program was integrated with each of the four previous phases to improve practices during the phase.

Conclusion: The PCDL starts from the notion of patient partnership into the co-design method in a living laboratory where all the involved actors are associated from the beginning and at every single stage. This allows developing a prototype and test by involving patients, pragmatic randomized trials allowing to assess the effectiveness

All Authors: Marie-Pascale Pomey, University of Montreal; Josée Arsenault, CHUM; Audrey-Maude Mercier, CHUM; Valérie Lahaie, CHUM; Olivier Fortin, CHUM; Alain Michel Danino, CHUM

ID: 318
Author: Mr. Danial Qureshi
Title: Benchmarking time to initiation of end-of-life homecare nursing: A population-based cancer cohort study in regions across Canada
Type of Abstract: Poster

Objectives:

1) Describe regional variation in mean time to first EOL home care visit starting from 6 months before death among health regions across BC, NS, ON
2) Establish three-province average with confidence limits for outcome
3) Determine national empiric benchmark based on best regional performers

Approach: This is a retrospective cohort study of patients with a cancer-confirmed cause of death between 2004-2009, from three Canadian provinces (British Columbia, Nova Scotia, and Ontario). We linked multiple administrative health databases within each province to examine homecare use in the last six months of life. Our primary outcome was mean time (in days) to first end-of-life homecare nursing visit, starting from six months before death, by region. We developed an empiric benchmark for this outcome using a funnel plot, controlling for region size.

Results: Of the 28 regions, large variations in the outcome were observed, with the longest mean time (97 days) being two-fold longer than the shortest (55 days). On average, British Columbia and Nova Scotia had the first and second shortest mean times, respectively. The province of Ontario consistently had longer mean times. The empiric benchmark mean based on best-performing regions was 57 mean days.

Conclusion: Significant variation exists for the time to initiation of end-of-life homecare nursing across regions. Understanding regional variation and developing an empiric benchmark for homecare nursing can lead to achievable targets for earlier initiation of end-of-life care.

All Authors: Danial Qureshi, Ottawa Hospital Research Institute; Hsien Seow, McMaster University

Title: Leading the Future of Healthcare: Broad Spectrum Collaborative Partnerships to Enhance Healthcare Performance
Type of Abstract: Poster

Objectives: Healthcare organizations are challenged to improve quality and safety outcomes in order to sustain and enhance clinical performance. Health innovation has been identified as a key driver for performance improvement initiatives; partnerships between academics and industry are a major factor contributing to success in this area to improve innovation performance.

Approach: As a model of healthcare innovation, our research and innovation initiative is based in both academic and clinical environments. Through strategic growth and sustainability of industry-government-academic partnerships, our initiative aids in reducing the gap between the discovery of new knowledge and its use by companies and the health system. In addition to our partnership network, the Centre has over a decade of success in quality improvement in the health system, drawing upon the use of interdisciplinary expertise to conduct research, and the ability to conduct this research across the continuum of care, from the hospital directly into the community.

Results: Our Centre enables healthcare performance improvement by bringing expertise together across a variety of disciplines (e.g., human factors, sociology, engineering, computer sciences, design, and policy experts), to bridge the cultural divide between academia and industry, and to aid in implementation of new innovations into healthcare. In the past 18 months, our collaborations realized success in a number of areas: six new industry partnerships; 29 new research projects; 47 ongoing projects; seven technology evaluations; five market-ready prototypes; and 58 trainees. Partnerships have also resulted in the implementation of seven new health technologies in the global healthcare landscape. These technologies are impacting diverse areas of the system including reducing the spread of infection in hospitals and enhancing care provider and patient communication across the continuum of care.

Conclusion: Cross-sector partnerships improve healthcare quality and safety by targeting the needs of the health system. Our Centre's model of research collaborations enables commercialization opportunities for academic and industry partners, encourages local and regional economic development, and promotes knowledge translation and uptake of new technologies and innovations in health systems globally.

All Authors: Leora Rabatach, W21C, University of Calgary; Deirdre McCaughey, Cumming School of Medicine, University of Calgary; Jill de Grood, W21C, University of Calgary; Rose Geransar, W21C, University of Calgary

ID: 544
Author: Mr. Shravan Ramayanam
Title: Manitoba First Nations Regional Health survey Phase 3 (2015-2016) results
Type of Abstract: Poster

Objectives: The First Nations Regional Health Survey (RHS) is the only national health survey in Canada, designed, developed and delivered by the First Nations for the First Nations. The objective of this survey is to provide information regarding Education, Employment, Income, and other determinants of health on reserves since 1990s

Approach: Manitoba is one of the ten regions across the country to participate in RHS 3. Within Manitoba, Health Information Research Governance Committee (HIRGC) provides oversight and governance of the RHS based on our regions ethical process that ensures Free, Prior and Informed Consent, Principles of OCAP, First Nations Ethics and benefits to First Nations. For RHS phase 3, 35 First Nations communities were randomly selected across 7 tribal councils and Northern and Southern Independents in Manitoba. Data was collected between November 2015 and December 2016. Survey was administered through Computer Assisted Personal Interviews (CAPI) programming using Entryware survey software

Results: A total of 3509 surveys were collected during the data collection period, achieving 85.5% of target sample. During this time, 62 data collectors were trained. This presentation will outline some of the preliminary results of the Phase 3 of RHS as well as compare the results between phase 2 (2008-2010) and phase 3 of RHS. The results mainly focus on areas such as Language, Education, Employment, Income and Living conditions

Conclusion: Prior to RHS, on reserve First Nations lacked information regarding determinants of health as they were excluded from 3 major national health surveys. RHS increases understanding of First Nations situation and needs and provides evidence based information for leadership to bring policy changes to improve overall well-being of First Nations

All Authors: Shravan Ramayanam, First Nations Health and Social Secretariat of Manitoba; Leona Star, Nanaadawewigamig

ID: 545
Author: Mr. Shravan Ramayanam
Title: Telling our own stories through data in Manitoba First Nations
Type of Abstract: Poster

Objectives: "Telling our own stories through data" (TSTD) project is intended to gather information about how the survey results have helped the First Nations communities in Manitoba to identify needs, fill the gaps and bring about a positive change in their community

Approach: TSTD is an ongoing project based on all the survey projects undertaken by Nanaandawewigamig. Initially, invitation to participate is sent to the communities. Once the invitation is accepted, an initial visit is made to the community to discuss the event in detail with the leadership and to address any questions they have. Once the formal approval is received, the actual event is organized, in which, the community identifies and gathers important stakeholders in the community to provide their perspective on several themes regarding data and its importance in their community

Results: This presentation will outline the results and benefits of TSTD to the participating community as well as Nanaandawewigamig. The discussion starts with participants led by community leadership expressing their views about what data means to them. Each individual provides their own perspective of data. Building up on the discussion, participants will identify the key areas where the data has been resourceful. They are encouraged to provide information on how data in each of these identified areas has been helpful in program planning, needs prioritization, strategic planning, resource allocation etc. Finally, the participants are asked to provide information regarding future areas of research focus and additional supports needed to make comprehensive use of the data

Conclusion: Knowledge translation is an important element in population health research. Projects such as TSTD provide information about importance of surveys in improving the overall well-being of the community. It also helps to identify future areas of research focus and to provide assistance to the community with data and its usage

All Authors: Shravan Ramayanam, First Nations Health and Social Secretariat of Manitoba

ID: 257
Author: Dr. Jennifer Rayner
Title: Harnessing the Power of Data to Improve the Health of Populations: Learning Health Systems within Ontario Community Health Centres
Type of Abstract: Poster

Objectives: The objectives of this session are to review the results of a provincial meeting of over 70 attendees that examined how well Ontario Community Health Centres fit the Learning Health System Framework developed by Psek et al (2015).

Approach: The concept of a Primary Care Learning Health System was presented at a provincial conference with over 70 attendees (providers, researchers, clinical leaders), in June, 2017. This session reviewed the framework created by Psek et al. (4) and the nine components of a Learning Health System to determine how close we were to being a Learning Health System (data & analytics, people/partnerships, client/family engagement, ethics/oversight, evaluation methodology, funding strategy, organization, prioritization, and deliverables). Each component was reviewed and discussed. Evidence was provided for each component and validated amongst the group.

Results: The CHC sector met many of the components outlined by Psek et al. Several key enablers (values, structures, technology, and standards) as well as potential barriers were identified. CHCs work together as a sector resulting in a collaborative and unified voice. Decisions are made provincially and all CHCs abide by these decisions, encouraging strong uptake on initiatives. A set of data standards that reflect comprehensive primary health care were universally adopted and all CHCs submit close to real-time data to a shared provincial data warehouse. Evidence was provided that supported all of the components suggested by Psek.

Conclusion: Evidence was provided for each of the components however a key question was left outstanding - How do we 'own this title' and feel enabled to perform like a Learning Health System?

All Authors: Jennifer Rayner, Association of Ontario Health Centres; Merrick Zwarenstein, Centre for Studies in Family Medicine; Cathy Thorpe, Western University

ID: 396
Author: Dr. Emily Read
Title: Employee and Family Assistance Use at New Brunswick Nursing Homes: Results of a Pilot Study
Type of Abstract: Poster

Objectives: Nursing home workers face increasing job demands and work stress, contributing to negative work and health outcomes. This research examined a) NB nursing home employees' usage of and satisfaction with EFAPs and b) how EFAP use relates to employee work and health outcomes.

Approach: An online survey using validated scales and questions about EFAP use was completed by 43 non-managerial nursing home employees (13.6% response rate) at a nursing home in New Brunswick between April-June 2017. All participants were female and Anglophone with a mean age of 40.93 (SD = 13.38). Most had a Community College Diploma (64.3%), worked full-time (64.3%), and nearly half were Personal Support Workers/Resident Attendants (45.2%).

Results: Most (97.7%) were aware of their EFAP but only 20% had used it in the past year. E-learning had the highest rate of use (50%), while e-counselling, group counselling, and depression screening had the least (3.2% each). Participants were moderately satisfied with their EFAP. They also reported high levels of burnout, work engagement, and job satisfaction; as well as low/moderate levels of physical health, mental health, resident-centered care, and turnover intentions.

Conclusion: Past findings of low EFAP usage were replicated in a novel NB nursing home context, yet employees appeared to have experienced job-related burnout and other health outcomes that could be addressed by their EFAP. Future research should further explore how to overcome barriers to EFAP use.

All Authors: Emily Read, University of New Brunswick; Sue O'Donnell, University of New Brunswick; Patrick Bruning, University of New Brunswick; Jennifer Donovan, York Care Centre

ID: 303
Author: Mr. Michael Reid
Title: Small Area Variations in Unplanned Repeat Hospitalization in Nova Scotia
Type of Abstract: Poster

Objectives: Unplanned readmission to hospital is widely used as an indicator of hospital performance, but community supports likely also play a role in unexpected returns to hospital. Our objective was to estimate the effect of community of residence on the risk of an unplanned, repeat hospitalization (URH) after an index discharge.

Approach: Hospital discharge data for 2010-14 was used. The outcome was an unplanned repeat hospitalization following a "index" discharge. Using methods for small area rate estimation, we used an accelerated failure time model with a random effect for community (defined as the postal code forward sortation area(n=73))to estimate the relative risk of experiencing an unplanned repeat hospitalization as a function of community of residence, adjusted for patient case-mix. Estimates were adjusted for age-sex, last year of life, disease types and multi-morbidity. We estimated the overall variation in rates explained by community, and the rates for individual forward sortation areas.

Results: Overall, community of residence had a highly significant effect on the risk of experiencing an URH. While most communities did not differ from the provincial mean in any meaningful way, ten of the 73 communities examined showed considerable variation in risk of experiencing an URH. Nine of ten showed a statistically significant increased risk of experiencing an URH, only one showed a statistically significant decrease. Analysis also demonstrated that the effect of living in particular communities can be larger than the adjusted effect of conditions like cardiovascular disease and diabetes. The communities identified in this study tend to be clustered in specific areas of the province and correlate well with previous work done on high-cost healthcare use within Nova Scotia.

Conclusion: Community of residence can play a significant role in whether or not someone returns to hospital unexpectedly. This work shows community variation, but not why. Communities identified in this project can be the focus of future research into the local systems that account for the observed community variation in URH.

All Authors: Michael Reid, Dalhousie University, Dept. of Community Health and Epidemiology; Tara Sampalli, Research, Innovation & Discovery, Nova Scotia Health Authority; George Kephart, Community Health and Epidemiology, Dalhousie University; Richard Gibson, Nova S

ID: 111
Author: Mr. Sebastian Rios
Title: Development and Validation of a Marginalization Index for Inpatient Psychiatry
Type of Abstract: Poster

Objectives: This presentation describes the creation and validation of an index for inpatient psychiatry to measure marginalization at the person-level based on data from the Ontario Mental Health Reporting System (OMHRS).

Approach: The index was developed by cross-referencing items from OMHRS to the Ontario Marginalization Index, a census and geographically based index that measures domains such as residential instability and material deprivation. Distribution of scores for two samples was used to determine cut-off values of the index, while validation was based on the criterion item of "homelessness." Additionally, the interRAI Network for Mental health (iNMH) was consulted to determine inclusion/exclusion and weighing of items.

Results: This study identified seventeen items from a large comprehensive assessment system currently used in numerous jurisdictions to develop an index for screening marginalization. Psychometric tests of the items indicated that the index is valid and able to identify individuals at risk of experiencing aspects marginalization, such as homelessness and police intervention.

Conclusion: As part of a larger comprehensive system, such an index can help in decision support, evaluation, and provide a foundation for more ambitious research questions. The index can also improve quality of care by providing a way to identify individuals that need to be better supported in the community.

All Authors: Sebastian Rios, University of Waterloo; Christopher Perlman, University of Waterloo

ID: 309
Author: Ms. Caitlin Robertson
Title: Physician Perspectives of Medical Assistance in Dying (MAiD): A Scoping Review
Type of Abstract: Poster

Objectives: Despite the legalization of medical assistance in dying (MAiD) in Canada in 2016, access to MAiD is largely dependent upon physician willingness to provide this service. This study examined the state of the science globally regarding physicians' perspectives towards medical assistance in dying (MAiD).

Approach: A scoping review of the literature using the methods described by Levac et al. was conducted. Papers published in English over the past five years (May 2012 to May 2017) were included. Papers that focused on other healthcare providers, involuntary acts of assisted dying, and any other acts that would be considered illegal in Canada (e.g. under 18 years of age, mental health as the sole diagnosis) were excluded. Data extracted included study characteristics, methods, and results. Thematic analysis will be conducted to identify common themes among the studies.

Results: A total of 140 papers were identified, of which 90 were included in the final analysis. Results showed that most literature on physicians' perspectives on MAiD were European, with few from Canada (which were mostly opinion pieces). Early thematic analysis points to religion and the physician's scope of practice (Hippocratic oath) as being the main reasons for physicians denying this service. In contrast, patient dignity and ending the suffering of terminally ill patients were common reasons that physicians provide this service.

Conclusion: Legalization of MAiD is an important first step towards providing terminally ill Canadians with control over the conditions of their death. However, the results suggest that physician perspectives on MAiD influence access to this service for patients but further research is needed in the Canadian context.

All Authors: Caitlin Robertson, University of New Brunswick; Emily Read, University of New Brunswick

ID: 78
Author: Mrs. Laura Rosella
Title: Using drug administrative data to Understand the influence of sociodemographic and behavioural predictors of future high resource users
Type of Abstract: Poster

Objectives: High Resource Users (HRUs) are commonly identified from the perspective of the provincial payer, which typically does not account for privately insured prescription drugs. We aimed to examine characteristics associated with becoming a HRU when total health care costs included drugs from an eligibility-based program, universal program, and all drugs.

Approach: Linked Canadian Community Health Surveys (CCHS) were used to create two cohorts of Ontario (n=58,617, cycles 2005-2008) and Manitoba respondents (n=10,504, cycles 2007-2010). HRUs (top 5%) were identified by calculating health care utilization for 5 years following interview date and computing all costs in the linked administrative databases, with three approaches used to include drug costs: 1) Ontario's eligibility-based coverage (for ages 65+ or receiving social assistance); 2) Manitoba's universal coverage; 3) Manitoba's total drug costs (provincially and privately insured). Logistic regression models were used to estimate the association between socio-demographic and health behavioral predictors and HRU.

Results: With eligibility based coverage, leading predictors for HRU status were age (≥80 vs. <30: OR 37.29, CI: 30.08-46.24), household income (Q1 vs. Q5: OR 1.69, CI: 1.47-1.95), and smoking (heavy vs. never: OR 1.58, CI: 1.32-1.90). The influence of age and income attenuated with universal coverage (≥80 vs. <30: OR 27.34, CI: 18.53-40.33; Q1 vs. Q5: OR 1.34, CI: 1.04-1.88) and total drug costs (≥80 vs. <30: OR 29.08, CI: 19.64-43.08; Q1 vs. Q5: OR 1.20, CI: 0.90-1.60). In contrast, the influence of smoking increased with universal coverage (heavy vs. never: OR 2.97, CI: 2.18-4.05) and total drug costs (heavy vs. never: OR 3.12, CI: 2.29-4.25). Other predictors of HRU that strengthened with greater drug coverage were perceived health, body mass index, and physical activity.

Conclusion: The findings demonstrate that differences in the population coverage for prescription drug costs influence the relative importance of clinical, sociodemographic and behavioural risk factors on future HRU status. Modifiable risk factors such as body mass index and smoking are important targets for reducing the HRU burden.

All Authors: Laura Rosella, Dalla Lana School of Public Health, University of Toronto; Kathy Kornas, University of Toronto; Joykrishna Sarkar, Manitoba Centre for Health Policy; Randy Fransoo, Manitoba Centre for Health Policy; Catherine Bornbaum, Dalla Lana School o

ID: 570
Author: Dr. Nancy Ross
Title: Measuring Adverse Childhood Experiences, Current Health Challenges and Factors Promoting Resilience in Primary Health Care
Type of Abstract: Poster

Objectives: This study will develop, analyze and demonstrate tools to assist primary healthcare services to: a) measure the prevalence of Adverse Childhood Experiences (ACEs) among patients B) define the impact of ACEs on health and c) develop strategies that support the expansion of resiliencies that protect against the consequences of ACEs.

Approach: This mixed methods study paired the Adult Childhood Experiences (ACEs) questionnaire with a Adult Resilience Measure to collect preliminary data among three hundred primary health care patients attending a family clinic aged 18 years and older to demonstrate feasibility and generalizability of our approach and its relevance to program and policy development. This integrative approach measured the cumulative or 'dose-response' relationship between ACEs and consequent health impacts and identified protective factors. A thematic analysis was applied to qualitative data. Descriptive analysis for all exposure and outcome variables was performed on quantitative data using frequencies and proportions for categorical variables.

Results: We are the second province, following Alberta to implement a study in primary care that explores relationships between childhood adversity, later adult health consequences and factors that may mitigate these and thereby contribute to resilience. Preliminary qualitative data will be shared to describe the factors identified as contributing to resilience. Results from the ACE questionnaire that included ten items: emotional, physical, and sexual abuse; emotional and physical neglect; five types of household dysfunction will be presented. Results from our bivariate analysis will identify adults with high ACEs and low resilience and poor health outcomes to highlight the need for interventions to assist this population. Results shared will explore the role protective factors may play in mitigating the effects of ACEs.

Conclusion: Knowledge generated by this study will explore the feasibility of implementing the Adverse Childhood Experiences questionnaire and the Adult Resilience Measure as a standard of care within primary health care to help reduce the personal and economic impact of disease burden, costs to the health care system and societal cost.

All Authors: Nancy Ross, School of Social Work, Faculty of Health, Dalhousie University ; Sara Torres, School of Social Work, Faculty of Health, Dalhousie University

ID: 42
Author: Ms. Angela Russolillo
Title: Responding to the Opioid Overdose Epidemic – The Role of Methadone Maintenance Treatment on Mortality in a cohort of Canadian Provincial Offenders.
Type of Abstract: Poster

Objectives: Importance: Individuals with criminal histories have high rates of opioid dependence and mortality. There is uncertainty about whether methadone treatment reduces the risk of overdose fatality or other causes of mortality.

Objective: To investigate the association between methadone maintenance treatment (MMT) and mortality.

Approach: Design, Setting, Participants: Population-level linked administrative records were examined in British Columbia (BC) Canada. Individuals with a history of conviction and who filled a methadone prescription between January 1, 1998 and March 31, 2015 were eligible for inclusion. Participants were followed from the date of first dispensed methadone prescription until censoring (date of death or March 31, 2015). Methadone treatment was divided into medicated (methadone was dispensed) and non-medicated (methadone was not dispensed) periods and analyzed as a time-varying exposure. Hazard ratios (HRs) were estimated using multivariable Cox regression to examine mortality (all-cause and cause-specific) during the study period.

Results: Results: Participants (n=14,530) had a mean age 34.5 [SD: 9.4] years, were 71.4% male, with median follow-up of 6.9 years (IQR, 3.4-12.8). 1,275 participants died during the observation period. The overall all-cause mortality rate was 11.2 per 1000 PYs. Participants were significantly more likely to die from both non-external (AHR 0.27 [0.23,0.33]) and external (AHR 0.41 [0.33, 0.51]) causes during non-medicated periods, independent of socio-demographic, criminological, and health-related factors. Death due to infectious diseases was 5 times lower (AHR 0.20 [0.13, 0.30]) and accidental poisoning (overdose) deaths were nearly 3 times lower (AHR 0.39 [0.30, 0.50]) during medicated methadone treatment periods.

Conclusion: Conclusion: Adherence to methadone was associated with significantly lower rates of death in a large cohort of Canadian offenders. Efforts to further increase adherence may contribute to reductions in overdose deaths and other causes of mortality in criminal justice populations.

All Authors: Angela Russolillo, Simon Fraser University; Julian Somers, Simon Fraser University; Akm Moniruzzaman, Simon Fraser University

ID: 96
Author: Mr. Mohammad Nazmus Sakib
Title: Examining multimorbidity among middle-aged Canadians
Type of Abstract: Poster

Objectives: Background: Multimorbidity can be defined as the presence of three or more chronic conditions in an individual. The research on multimorbidity has predominantly focused on older people, but many middle-aged people also live with multimorbidity. There are very few studies that describe the extent of multimorbidity in middle-aged people. We examined the prevalence and risk factors of multimorbidity among middle-aged Canadians to better understand the status of multimorbidity in this age group.

Approach: Methods: In this cross-sectional analysis of the Canadian Longitudinal Study on Aging (CLSA) baseline survey, we extracted data from 29,841 participants aged 45-64 years, representing 9,055,213 Canadians from a database of 51,338 people aged 45-85 years. Self-reported data on 27 chronic conditions were used to derive different multimorbidity definitions. We estimated the prevalence of 3+ to 5+ chronic conditions in different subgroups using survey weights. Simple and multivariable logistic regression analyses were performed to determine the association between a range of socio-demographic and lifestyle factors, and multimorbidity.

Results: Result: We found that 39.59% (99% CI 38.44–40.74) of participants had three or more chronic conditions with a mean number of chronic condition of 2.41 (99% CI 2.37–2.46). The prevalence of multimorbidity (3+ chronic conditions) increased with age from 29.70% in the 45–49-year-old age group to 52.00% in individuals aged 60-64 year. The prevalence of 4+ and 5+ chronic conditions were 24.53% and 14.17% respectively. The most common chronic conditions were allergy (40.23%), hypertension (26.21%), and back problem (24.72%). Increasing age, female sex, low income, low education, and smoking were significantly associated with multimorbidity. However, when adjusted for the covariates, the effects of education and smoking were not found significant. Alcohol intake exerted a protective effect which persisted even in adjusted analysis.

Conclusion: Conclusion: Multimorbidity is a common phenomenon among middle-aged people and is not limited to the older people only. The high prevalence of multimorbidity among middle-aged suggests the need to focus on prevention, as well as appropriate care and treatment of people with multimorbidity.

All Authors: Mohammad Nazmus Sakib, University of Manitoba; Philip St. John, University of Manitoba; Shahin Shooshtari, University of Manitoba; Verana Menec, University of Manitoba

ID: 240
Author: Mr. Ivan Sarmiento
Title: Relationship between the number of potential users and the level of coverage of an online parenting newsletter in Quebec
Type of Abstract: Poster

Objectives: 'Naître et grandir' (N&G) provides parents with information resources (website and newsletter) to support the development of their children (0-8). Our objective was to analyze the geographical patterns of N&G subscribers in relation to child population and social and material deprivation, to prioritize areas for intervention in Quebec.

Approach: A spatial analysis of N&G usage was done by intersecting three layers of data classified into quintiles: (1) the number of N&G subscribers per postal code was computed from data provided by subscribers upon registration; (2) the deprivation indices were assigned to each postal code using a publically-available SAS macro; and (3) public census data provided the child population (0-9) per dissemination area. Intersecting the layers allowed us to overcome differences in spatial frameworks. Intersection of these layers produced a map identifying areas of high information need but low N&G coverage. This map was presented using an open GIS viewer.

Results: Some 97.7% (4443/4546) N&G subscribers reported postal code, but only 28.1% (1280/4646) reported information at the six-digit level. Therefore, information was summarized at the three-digit level. An index of social and material deprivation produced by Quebec using 2011 census data was assigned to 418 postal code areas using a SAS macro. These areas were classified into five categories (1 corresponding to those with lower deprivation and 5 those with higher). A third map classified 13,362 dissemination areas with 840,420 children into quintiles. An intersection of the maps for potential users and level of coverage produced a final classification with five categories (the areas with less potential users and more subscribers received 1, and those with more potential users and fewer subscribers received 5).

Conclusion: Spatial analysis in an accessible method for using public data to evaluate a service's coverage. Although the model is limited by the scale of the units combined and assumes a homogeneous distribution of the variables within these units, maps are a practical way to convey results to decision makers.

All Authors: Ivan Sarmiento, McGill University; Araceli Gonzalez-Reyes, McGill University; Reem El Sherif, McGill University; Pierre Pluye, McGill University; Geneviève Doray, Naître et grandir, Lucie and André Chagnon Foundation; Paloma Cruz, McGill University

ID: 265
Author: Ms. Hailey Saunders
Title: Making the most out of existing data: How to show value for money using real-world community health program data
Type of Abstract: Poster

Objectives: In an environment of constrained resources and accessibility of real-world person-level data, evidence on the value for money of health interventions could help inform resource allocation decisions. This study demonstrates how existing person-level observational data was used to conduct an economic analysis of mental health and/or addictions (MHA) crisis teams.

Approach: In York Region, Ontario, three different types of MHA crisis teams respond to emergency 911 calls in addition to primary responders for MHA-related issues. Crisis teams aim to resolve situations on scene, though MHA apprehensions and trips to the emergency department (ED) are possible outcomes. Using data already being collected by the teams (e.g., clients' demographic characteristics, outcomes, duration of visit), we conducted an economic analysis to determine the potential value for money of the programs from the perspective of the Ontario Ministry of Health and Long-Term Care by reporting differences in costs and outcomes among the three crisis teams.

Results: The Co-Response Unit (CRU), Mental Health Support Team (MHST), and Mobile Crisis Intervention Team (MCIT) differed in hours of operation and team composition (e.g., police officer and MHA crisis workers). The average age of clients was around 40 years. The three teams significantly differed in the proportion of clients who remained on scene (p<0.05). MHST reported the highest proportion of clients who remained on scene (79%), followed by CRU (69%), and MCIT (52%). One limitation was that there was no data to distinguish between necessary and unnecessary apprehensions. For all teams, over 50% of clients remained on scene and at least 75% of visits were under 2 hours. Hourly program costs were estimated to be $49 for CRU, $54 for MHST, and $77 for MCIT.

Conclusion: This study exemplified how we used preexisting real-world person-level observational data to conduct an economic analysis of MHA crisis teams. This analysis generated economic findings, with both strengths and limitations, which can represent one piece of evidence that may assist decision-makers in their funding or resource allocation decisions.

All Authors: Hailey Saunders, Centre for Excellence in Economic Analysis Research; Wanrudee Isaranuwatchai, Centre for Excellence in Economic Analysis Research; Samuel Law, St. Michael's Hospital; Deena n/a, Centre for Excellence in Economic Analysis Research; Jorge T

ID: 438
Author: Ms. Mary Scott
Title: Does Inpatient Palliative Care Consultation Improve Transitions into the Community for Frail Patients with Life-Limiting Conditions?
Type of Abstract: Poster

Objectives: Evidence has shown that inpatients receiving palliative care consultations have reduced re-admissions, hospital length-of-stays, Intensive Care Unit (ICU) admissions, laboratory and diagnostic procedures, invasive therapies, and potentially burdensome transitions of care. This study aims to determine if inpatient palliative consultations impact the quality of transition into the community post-discharge.

Approach: A systematic literature review was conducted to identify gaps in the literature concerning transitions of palliative care between hospital and community. Secondly, a data analysis will link locally collected data from palliative care consultations in an academic medical centre (The Ottawa Hospital) and provincial health databases (ICES) to follow patients throughout their end of life trajectories following an inpatient palliative care consultation. Thirdly, analyses of all hospitalizations in Ontario will describe the involvement of inpatient palliative care across the province.

Results: Earlier palliative care consults in hospitals have been shown to ease potentially burdensome transitions of care during the last 90 days of life. Linkage of The Ottawa Hospital data to ICES is pending. For our provincial study, we have captured the hospitalizations of 370,679 Ontario decedents (April 1, 2011-March 31, 2015) in their last year of life. 569,706 hospitalizations were examined, of which, 26.8% had palliative care involvement. In these hospitalizations, a palliative care team was the main provider service in only 4.8% of admissions. We will next explore the associations between palliative care involvement, and subsequent palliative home care and physician home visit involvement 30 days post-discharge. These initial findings will explore how palliative care improves transitions of care.

Conclusion: This project presents a preliminary understanding of how inpatient palliative care consultations improves transitions of care into community and home care programs. This includes facilitating initiation of publicly-funded palliative home care services, and connecting patients to a physician who performs palliative care home visits.

All Authors: Mary Scott, Ottawa Hospital Research Institute; Peter Tanuseputro, Bruyère Research Institute & Ottawa Hospital Research Institute; Raphael Chan, Ottawa Hospital Research Institute

ID: 523
Author: Ms. Avra Selick
Title: The feasibility and value of a peer fidelity assessment model to support program quality improvement
Type of Abstract: Poster

Objectives: Routine fidelity monitoring is a process that can support quality improvement and ensure adherence to standards. Currently, it is not implemented systematically in Ontario community mental health programs. This study explored the feasibility and perceived value of using a peer fidelity assessment model in Early Psychosis Intervention (EPI) programs.

Approach: Assessments were conducted in 9 EPI programs using the validated First-Episode Psychosis Services Fidelity Scale (FEPS-FS). During a 2-day site visit, assessors interviewed staff, clients and families, reviewed charts, observed a team meeting and reviewed program materials. Assessor teams of EPI clinicians and evaluators were supported through training, tailored data collection tools and post-visit rating consensus meetings with an expert. Assessors conducted 1- 4 assessments.

Qualitative feedback was obtained through assessor focus groups (n= 3 groups, 12 participants), interviews with participating programs (n=5) and observation of consensus rating meetings (n=9). Thematic analysis was used to code and synthesize the data.

Results: Feedback supported the value and feasibility of the process. Fidelity results resonated with programs, who appreciated the acknowledgement of strengths and identification of opportunities for improvement. Some programs described specific improvement initiatives already identified in response to fidelity feedback.

Although there was a steep learning curve, assessor confidence and ability to reach rating consensus increased with experience. Variability in the organization and completeness of client charts complicated the assessment and the comparability of ratings across sites. A key challenge was the time demand on assessors.

Programs valued having peer EPI clinicians on the assessment team who understood the clinical experience, improving rating accuracy and rapport with program staff. Assessors valued the opportunity to see how other programs operate and meet other EPI clinicians.

Conclusion: This study demonstrated the feasibility and value of a peer fidelity assessment model. However, the process relied on volunteer assessors and was resource intensive. A next step is to explore the feasibility of sustaining and scaling the model. Utilizing telephone or self-assessment strategies, along with site visits, may reduce burden.

All Authors: Avra Selick, Centre for Addiction and Mental Health; Chiachen Cheng, Northern Ontario School of Medicine, Centre for Applied Health Research - St. Joseph's Care Group; Gordon Langill, CMHA Haliburton Kawartha Pine Ridge; Donald Addington, University of Ca

ID: 527
Author: Ms. Avra Selick
Title: Enhancing patient centered care: What can we learn from the Ontario Common Assessment of Need?
Type of Abstract: Poster

Objectives: Early psychosis intervention (EPI) is a time-limited program aimed at promoting recovery among young persons experiencing psychosis. To support client centered care, Ontario community mental health programs have implemented a standardized self-report need measure. This study reports results for EPI clients during and after their first year of service.

Approach: The Ontario Common Assessment of Need (OCAN) is a standardized client assessment that includes the Camberwell, a validated measure of need across 24 domains of health and community functioning. The scale is completed by both the client and their worker, who rate each domain as no need, met need or unmet need. The study sample included 610 EPI program clients with both staff and client ratings. We report sample descriptives and chi squared statistics to compare need for clients in their first year of service (53%) relative to clients who remain in service more than one year (47%).

Results: As expected, most clients were under 35 (94%), with 71% less than 25 years. Among first year service clients, unmet needs were highest in the health domain (psychotic symptoms, psychological distress and physical health), social domain (company and intimate relationships) and basic functioning domain (daily activities, money) Clients in service for more than one year reported significantly fewer unmet needs related to symptoms, distress and company. However, unmet need levels remained similar for physical health, daytime activities, money and intimate relationships. Overall, staff identified the same number of unmet needs as the first year service users but fewer unmet needs in the longer stay cohort. Some areas where unmet need might be expected (alcohol, drugs) were rated as low by both clients and staff.

Conclusion: The OCAN was useful for identifying key areas of unmet need for early psychosis service clients. At a system level, these data can identify common and unique needs across different client groups and help direct care. However, more support to programs to collect and use these data is needed.

All Authors: Avra Selick, Centre for Addiction and Mental Health; Janet Durbin, Centre for Addiction and Mental Health; Frank Sirotich, Canadian Mental Health Association, Toronto; Gordon Langill, CMHA Haliburton Kawartha Pine Ridge; Anna Durbin, Canadian Mental Heal

ID: 11
Author: Mrs. Sara Shearkhani
Title: Measuring Integrated Care's Reliance on Caregiver Support: A Caregiver Experience Survey
Type of Abstract: Poster

Objectives: The Integrated Funding Models (IFM) initiative in Ontario bundles payment and care across hospitals and homes. Unpaid care provided by informal caregivers is instrumental to its success. The purpose of this study was to develop an instrument (Caregiver Experience Survey [CES]) measuring the unintended consequences of IFM on informal caregivers.

Approach: A multiphase study design was used to develop CES:

Grey and scoping literature reviews focusing on quantitative articles were conducted to identify instruments used to measure caregiving. The results were shared with caregivers to gain first-hand knowledge of their perspectives on what should be measured. A series of reviews were then conducted focusing on psychometric properties of identified instruments.

Specific items or questionnaires were chosen in consultation with the research team; CES was then developed and revised in consultation with caregivers.

The survey is being administrated among a sample of IFM caregivers to test its validity

Results: Guided by the Triple Aim framework, the CES is composed of 3 main domains of health, experience, and cost. CES has 58 questions and takes 20 minutes to complete. EQ-5D-5L is used to measure caregivers' health. The 4-item version of the Zarit Burden Interview is used to measure caregiving burden. Eighteen questions were adopted from a variety of questionnaires to measure caregivers' experiences during the patient's hospitalization, during the creation of the discharge plan, and post-discharge in the community. It includes questions about their experience with healthcare professionals. The cost section contains 21 items to measure the economic value of informal care, productivity loss, opportunity costs, and uses of healthcare and social services. Additionally, sociodemographic information is gathered (10 items).

Conclusion: CES is a generic survey that captures the entirety of a caregiver's experience with IFM allowing for a thorough investigation of its unintended impacts. When the unanticipated effects are known, measures can be taken to provide caregivers with adequate support ensuring the sustainability of their contribution.

All Authors: Sara Shearkhani, Institute of Health Policy, Management, and Evaluation, University of Toronto; Walter Wodchis, University of Toronto; Kevin Walker, University of Toronto; Fatah Awil, University of Toronto; Nusrat Nessa, University of Toronto

ID: 146
Author: Dr. Esther Shoemaker
Title: The applicability of the Chronic Care Model with current Canadian HIV care delivery
Type of Abstract: Poster

Objectives: For people living with HIV using continuous antiretroviral therapy, HIV is now a complex chronic condition. We assessed the alignment of HIV care delivery in Canada with the Chronic Care Model, a framework that provides an integrated approach to the delivery of care for people with chronic conditions.

Approach: We conducted semi-structured interviews with key informants from 12 HIV care settings located in five Canadian provinces. Settings were eligible to participate if they were known to provide specialty or primary care services to people living with HIV. The interviews were recorded, transcribed verbatim, and analysed thematically. We assessed the extent to which HIV care settings incorporate the six components of the Chronic Care Model: organization of healthcare, self-management support, delivery system design, decision support, clinical information systems, and community resources and policies.

Results: The services provided by Canadian HIV care settings are aligned with several components of the Chronic Care Model, most prominently in the areas of linkage to community resources and delivery system design in the form of team-based care. Support for patient self-management consisted of group-based counselling or health education programs, but was not available in all settings. We found that the organization and leadership of healthcare systems could be a challenge for settings located in large hospitals, when administrative structures were unable to fully address the unique needs and care requirements of people living with HIV. Some participants further reported gaps in the availability of clinical information systems in their settings, which would help to evaluate the appropriateness of their services for their patient population.

Conclusion: Irrespective of composition of the care setting or its location, HIV care in Canada is well aligned with several components of the Chronic Care Model. We propose the need for improvements in the availability of electronic clinical information system and self-management support services in HIV care.

All Authors: Esther Shoemaker, Bruyère Research Institute; Claire Kendall, University of Ottawa c/o Bruyère Research Institute; Lisa Boucher, Bruyere Research Institute; Justin Joschko, ; Lois Crowe, Bruyère Research Institute; Marissa Becker, University of Manitoba;

ID: 149
Author: Dr. Esther Shoemaker
Title: The organizational attributes of HIV care delivery models in Canada
Type of Abstract: Poster

Objectives: With a rapid evolution in HIV treatment and approaches to care, our objective was to understand the current delivery of HIV care in Canada, specifically where care is delivered, how, and by whom, to inform the design of care models required to meet the evolving needs of the population.

Approach: We conducted an electronic cross-sectional survey of Canadian care settings identified as delivering HIV care between June 2015 and January 2016. Our survey was adapted from the Canadian Institute for Health Information's (CIHI) Measuring Organizational Attributes of Primary Health Care Survey and a multistakeholder performance framework for measuring comprehensive, community-based primary healthcare for people with HIV developed by our team. Given known potential differences in delivery approaches, we stratified settings as primary care or specialist care settings, and described their structure, geographic location, populations served, health human resources, technological resources, and available clinical services.

Results: We received responses from 22 of 43 care settings located in seven provinces (51% response rate). The total number of patients and people living with HIV served by the participating settings was 38,060 and 17,678, respectively (mean number of people with HIV in primary care settings = 1,005±1076, mean number of people with HIV in specialist care settings = 562±619). All settings were urban and most specialist (9/10) settings were located in a tertiary centre. While all specialist and primary care settings were team-based, primary care settings were more likely to offer preventative services (e.g., immunization, cervical smear, needle exchange, IUD insertion) and mental health services (e.g., access to addictions counseling and peer support). Chronic disease self-management and rehabilitation services were limited across settings.

Conclusion: Gaps in current HIV care settings include lack of broad access to preventative services, comprehensive access to mental health services, and access to team based care in non-urban settings. Our findings support the need to learn how shared care models can ensure comprehensive, timely, and accessible HIV care.

All Authors: Esther Shoemaker, Bruyère Research Institute; Claire Kendall, University of Ottawa c/o Bruyère Research Institute; Lisa Boucher, Bruyere Research Institute; Danielle Rolfe, Bruyere Research Institute; Lois Crowe, Bruyère Research Institute; Marissa Becker

ID: 31
Author: Ms. Caroline Silverman
Title: 2018 Prevention System Quality Index: Health Equity
Type of Abstract: Poster

Objectives: People facing health inequities have greater health risks and poorer health outcomes. Cancer Care Ontario's 2018 Prevention System Quality Index: Health Equity reports from a health equity perspective on four risk factors for cancer and other chronic diseases—tobacco use, alcohol consumption, unhealthy eating and physical inactivity.

Approach: Using indicator data and evidence from the literature, this report describes the distribution of cancer risk factors in the Ontario population, and how system-level policies and programs with the potential to reduce cancer risk factors can affect groups facing health inequities. It discusses the current status of policies and programs in Ontario, as well as opportunities to reduce cancer risk factors in populations with health inequities. Univariate analyses were conducted to examine indicators according to a range of socio-demographic factors.

Results: The findings show that populations facing health inequities have a higher prevalence of certain cancer risk factors and fare worse on several indicators intended to monitor the effects of policies and programs. Ontarians with lower income and less education have higher smoking rates, second-hand smoke exposure and lower rates of quitting smoking. Binge drinkers with lower income or less education have more frequent binge drinking episodes. Adults with lower income or less education consume fewer vegetables and fruit, and households with the lowest incomes also have the highest risk of food insecurity. Groups with lower income or less education were more physically inactive during leisure time. First Nations, Inuit and Métis populations have a higher prevalence of several behavioural risk factors than non-Aboriginal Ontarians.

Conclusion: Better data are needed to understand the cancer risk of populations facing health inequities. Comprehensive, cross-sectoral and multi-level strategies that include universal and targeted policies and programs are required to reduce risk factor prevalence in the population as a whole and in populations facing health inequities.

All Authors: Caroline Silverman, Cancer Care Ontario; Michelle Rand, Cancer Care Ontario; Maria Chu, Population Health and Prevention, Cancer Care Ontario

ID: 414
Author: Dr. Deepa Singal
Title: Using Open Space Technology to Develop a Provincial Cross-sectoral Strategic Plan for Manitoba in 7 Days: You can do it too
Type of Abstract: Poster

Objectives: Manitoba government embarked on an innovative and ground-breaking approach to engage stakeholders and co-create a strategic plan using a model of participatory driven action research. This presentation describes this process and presents learnings from this novel approach to development of public policy that ultimately effects the health of the population.

Approach: In 2018, Manitoba Education and Training hosted an open summit, "Learning for Life: Charting the Future through Literacy and Numeracy". The summit attracted 800 stakeholders including researchers, policy makers, teachers, students, administrators and parents. Open Space Technology (OST) was used, which is a powerful, evidence based tool that enables self-organization of diverse groups of stakeholders to engage deeply and creatively to solve enormously complex issues in an efficient manner. Data were collected at individual and group levels through workbooks, action plans and group notes. A qualitative research approach was used to analyze data, which centered around iterative refection and analysis.

Results: Rich information was gathered in regard to research, evidence based practices, traditional knowledge and person experiences on topics ranging from equity, curriculum examination, student evaluation, the use of big data, educator workforce development, and student health. The strategic plan will summarize the work conducted at this summit and outline several key priority areas for action and deeper dive. The key priority areas identified will reflect the visions of the stakeholders to co –create a one of a kind provincial strategy that is for the people, by the people.

Conclusion: Research demonstrates OST meetings result in transformative experiences for individuals and is useful for policy making. This presentation will serve as a knowledge exchange platform to present OST as a tool that can be used by a wide array of health services researchers to facilitate true consultation of stakeholders effectively.

All Authors: Deepa Singal, British Columbia Academic Health Sciences Network; Rob Santos, Manitoba Education and Training

ID: 312
Author: Dr. Chi-Ling Sinn
Title: Applying Multi-State Models to Understand Changes in Home Care Client and Caregiver Health
Type of Abstract: Poster

Objectives: This presentation will examine the relationship between changes in home care client depression and caregiver distress and residence location (private home or retirement home) and other covariates. Methodological challenges of using assessment and administrative data that are updated at irregular intervals will be highlighted and possible solutions explored.

Approach: Drawing on formal home care services assessment and service data, a multi-state model will be used to estimate how the transition probabilities differ between states for clients living in private home and retirement home settings. The sample will include all patients who were referred to home care services in Ontario and received at least 2 home care assessments that were 1 to 12 months apart. Data from DAD and NACRS will also be used to examine the effect of prior health service utilization on state transitions.

Results: During the time period from 2014 to 2016, 22,808 and 5,237 home care clients received home care services in private homes and retirement homes, respectively. For 54% (12,326) of those receiving care in private homes, clients were not depressed and caregivers were not distressed at time 1. At the next assessment, 6% of clients had become depressed (with no concurrent caregiver distress) and 20% of caregivers had become distressed. In comparison, only 10% of caregivers had become distressed at next assessment in the retirement home sample.

Conclusion: Multi-state models are useful tools for studying transitions in health states. In this study of Ontario home care, the probabilities of transition between client and caregiver health states are associated with residence location and other measures of client and caregiver well-being.

All Authors: Chi-Ling Sinn, School of Public Health and Health Systems, University of Waterloo; Jeff Poss, University of Waterloo

ID: 473
Author: Ms. Priatharsini (Tharsini) Sivananthajothy
Title: To Have A Planned C-Section Or Not: Exploring The Decision-Making Experiences Of Migrant And Canadian-Born Women
Type of Abstract: Poster

Objectives: The aim of our study was to explore how migrant women decided on their mode of delivery when a planned C-section was a possibility. We specifically wanted to understand who made the decisions, what factors were considered and whether migrant women's experiences differed from that of Canadian-born women.

Approach: A qualitative study using a focused ethnographic approach was conducted at a teaching hospital in Edmonton over a ten-month period.

The study population comprised of: 1) migrant women who immigrated to Canada after 2004 (N=64) and 2) Canadian-born women (N=27). All women included had a higher risk of undergoing a C-section. Data were collected through observation of prenatal appointments (N=250), L&D observations (N=27) and postpartum in-depth interviews (N=44). Written informed consent was obtained from participants and ethics approval was received from the University of Alberta.

Results: Our findings revealed the decision-making process was similar between both groups. Migrant and Canadian-born women were the primary decisions-makers for most planned C-sections while obstetricians provided information, support and time necessary for decision-making. Both groups' decisions were based on medical factors and socio-cultural factors such previous delivery experiences, length of recovery period, lack of social support, experiencing a vaginal birth and avoiding pain, scarring and vaginal tearing.

Factors such as length of recovery period and lack of social support had a larger effect on migrant women's decisions. Specifically, a group of migrant women chose to have planned C-sections in order to plan their time away from work, arrange childcare services, and overcome their lack of social support.

Conclusion: While both groups shared similar experiences, there is a need to understand and fulfill the underlying socio-cultural needs of migrant women, which may inadvertently be contributing to the higher C-section rates experienced by migrant women in Canada.

All Authors: Priatharsini (Tharsini) Sivananthajothy, University of Alberta School of Public Health; Zubia Mumtaz, School of Public Health, University of Alberta

ID: 537
Author: Mr. Steve Slade
Title: Seeing beyond the big picture: medical workforce change at the specialty and subspecialty level
Type of Abstract: Poster

Objectives: Key objectives of the Medical Workforce Knowledgebase (MWK) are to: 1) reveal critical measurement points along the medical workforce supply chain; 2) highlight workforce supply changes that are relevant to health care challenges in Canada; and 3) support health workforce decision-making with evidence that is based on authoritative data.

Approach: The MWK mines, analyzes and visualizes data from five authoritative data sources covering the breadth of medical careers, from entry to training to retirement. MWK metrics reflect the system's capacity to produce new physicians (based on residency quota); the earliest indicators of future physician supply (based on new trainees and certificants); as well as workforce age-sex demographics (based on licensed physician data). Descriptive statistics – including counts, percentages, ratios and linear trends – are presented for all medical specialties for the 5-year period 2011-2015. Using an easy-to-read data dashboard, the MWK offers an interactive visualization of medical workforce change.

Results: While Canada's total physician workforce has grown steadily since 2011, there are marked specialty level supply and demographic variations along the supply chain. The total number of new trainees and licensed physicians has grown steadily, by 11.5% and 13.3% respectively since 2011. However, surgical specialties are seeing a substantial downturn in supply. For example, Orthopedic Surgery has seen a 31.8% decrease in residency positions and a 31.7% decrease in new trainees since 2011. This downturn is coupled with the fact that about 1 in 6 orthopedic surgeons were aged 65+ in 2015. Geriatric Medicine has seen increases in residency quota, entry level trainees, and new certificants; however, geriatricians represent only 0.4% of the total medical workforce.

Conclusion: Gross statistics mask underlying medical workforce trends. Major change is happening in Canada at the level of medical specialties and subspecialties. The MWK reveals trends that portend important changes in patients' future access to specialty care. As a country with access challenges, MWK outputs can assist Canada's workforce decision-makers.

All Authors: Steve Slade, College of Family Physicians of Canada; Shanna DiMillo, Royal College of Physicians and Surgeons of Canada

ID: 244
Author: Ms. Serena Small
Title: Patient engagement in a health technology research program: Perspectives on process and lessons
Type of Abstract: Poster

Objectives: Our research team is designing a system to reduce preventable adverse drug events in British Columbia and has recently established patient partnerships. The objective of this presentation is to reflect on our first year of patient engagement, evaluate strengths and limitations, and identify key lessons to carry forward.

Approach: We will use a two-pronged approach to evaluate our patient engagement activities to date. First, all team members, including patient partners, will complete a survey about their experiences. The surveys were initially developed by Patients Canada and have been revised to reflect the project specifics. The surveys are tailored for patients/caregivers and researchers respectively, but questions are aligned to enable comparison. Survey responses will be coded and collaboratively analyzed by a patient partner and researcher. Second, a log containing all patient engagement activities completed over the course of the year will be analyzed qualitatively and presented alongside survey results.

Results: Although results are not currently available, data analysis will be complete by spring 2018 and will be presented. The survey questions seek to understand the roles of team members and patient partners, experiences with participating on a research team, contributions to the research, the provision of support, and reflections on lessons learned in the previous year. The qualitative analysis will highlight the different contributions made by patient partners, in addition to challenges and opportunities that emerged in various aspects of the project. The results will be used to inform the development of a set of key lessons and takeaways that will guide the team's approach to patient engagement going forward and contribute to the growing field of patient oriented research.

Conclusion: The survey and qualitative analysis are intended to demonstrate the value of patient partnerships in our research program and identify avenues for improvement. We address the importance of patient partnerships in contributing to health system research broadly and offer valuable insights for research teams that are interested in patient partnerships.

All Authors: Serena Small, Simon Fraser University; David Peddie, Simon Fraser University; Amber Cragg, University of British Columbia; Kevin Barry, Patient Voices Network; Corinne Hohl, University of British Columbia / Vancouver Coastal Health; Ellen Balka, Simon Fra

ID: 603
Author: Ms. Andrea Smith
Title: Integrating patient engagement and qualitative evidence synthesis in a health technology assessment – an example from CADTH
Type of Abstract: Poster

Objectives: Since 2015, CADTH has included qualitative reviews on patients' perspectives and experiences and engaged patients in our health technology assessments of medical devices. We describe our recent experience integrating patient engagement and qualitative evidence synthesis in a recent health technology assessment on minimally invasive glaucoma surgery.

Approach: As part of a health technology assessment of minimally invasive glaucoma surgery, we engaged several patients who have glaucoma to inform the development of the study protocol and research questions, the interpretation of the findings, and reporting of results. We conducted a systematic review and thematic synthesis of qualitative studies on patients' and caregivers' experiences of glaucoma. Interviews with engaged patients were conducted at several points across the assessment process, and were used to sensitize the review team to experiences and concepts, in particular for the qualitative evidence synthesis.

Results: We describe our experiences integrating patient engagement and qualitative evidence synthesis. People with glaucoma have a unique and valuable perspective not covered by the scientific team which add context and depth to our understanding of the condition and the technology under assessment. Patients comment on treatment benefits and harms they wish to avoid which are not consistently reported in published literature. We identify process considerations, including issues with recruitment, methods of summarizing findings, and working within tight timelines. We will discuss the importance of documenting the influence of patient engagement, and, challenges and successes with integrating engagement and qualitative evidence synthesis.

Conclusion: Methods for using patient engagement in conjunction with qualitative evidence synthesis can further the integration of patients' experiences and perspectives in health technology assessments. However, there are other opportunities to expand patient engagement and qualitative research in health technology assessment.

All Authors: Andrea Smith, CADTH; Tamara Rader,

ID: 147
Author: Ms. Charlene Soobiah
Title: Selecting optimal outcomes and measures in a systematic review on geriatrician-led care models:
A modified Delphi study and cross-sectional survey
Type of Abstract: Poster

Objectives: A systematic review (SR) on the effectiveness of geriatrician-led care models is underway and to understand which outcomes and measures are relevant to knowledge users (KU), we conducted a modified Delphi and a cross-sectional survey to select relevant outcomes and optimal measures of these outcomes.

Approach: Patients, caregivers, policymakers and geriatricians participated in a modified Delphi to select outcomes for inclusion in the SR. Participants rated the importance of outcomes generated from the literature using a 7-point Likert scale ranging from 'extremely important' to 'not important at all'. After the Delphi, a cross-sectional survey was conducted with geriatricians to determine optimal measures to assess the preferred outcomes. Geriatricians ranked their preferred validated outcome measures identified from the literature. Results were analyzed descriptively using frequencies, means, medians and interquartile ranges.

Results: 33 stakeholders participated in the first round of the Delphi including 2 patients, 5 caregivers, 4 policymakers and 22 geriatricians from Ontario, Alberta and Saskatchewan. Participants rated 27 different outcomes. Top-rated outcomes included; function (6.85), cognition (6.47), and quality of life (6.38). 26 stakeholders participated in round 2 of the Delphi and rated 24 outcomes. The highest rated outcomes in round two were again function (6.87), quality of life (6.45) and cognition (6.43). 22 geriatricians participated in the cross-sectional survey and ranked a total of 12 scales for cognition, function and quality of life. Activities of Daily Living (function), Mini Mental State Exam (cognition) and the Medical Outcomes Study SF-36 (quality of life) were the top-ranked outcome measures.

Conclusion: Stakeholders preferred outcomes that focused on function, quality of life and cognition when considering the effectiveness of geriatrician-led models of care. The modified Delphi and survey allowed us to understand which outcomes and measures are most relevant for patients, caregivers, policymakers and geriatricians, thereby tailoring the SR to KU needs.

All Authors: Charlene Soobiah, University of Toronto; Gayle Manley, St. Michael's Hospital; Sylvia Teare, University of Calgary; Elliot Paus-Jenssen, Saskatoon Council on Aging; Ainsley Moore, McMaster Univeristy; Sharon Marr, McMaster Univeristy; Jemila Hamid, St.

Title: Challenges and Facilitating Factors in Accessing Administrative Data for Research: Insights from the Children's Health Profile and Trajectory Initiative in NB and PEI
Type of Abstract: Poster

Objectives: To identify and advise on the facilitating factors and challenges of accessing select administrative health data (AHD) in New Brunswick (NB) and Prince Edward Island (PEI) for the purpose of creating an intra-provincial Child Health Profile (CHP) and population-based birth cohort database in both provinces, using existing administrative datasets.

Approach: This research intends to demonstrate the power of administrative data collected in NB and PEI, but currently not analyzed to produce evidence on the effectiveness and limitations of early-life primary prevention strategies in both provinces. It is a cross-jurisdictional collaboration between NB and PEI with an integrated knowledge translation (iKT) approach involving provincial government managers, decision/policy-makers, data custodians, health practitioners, parents and community organizations, in addition to academic researchers. The team validated research questions regarding children's health status and trajectory, identified AHD of interest in each province, requested access to the data, and developed a roadmap for the CHP.

Results: Access to select AHD required considerable preparation and ongoing discussions over many months. This process was facilitated by iKT. Key facilitators were the NB Institute for Research, Data and Training, a newly established data repository that holds provincial AHD in NB, and the provincial health authority in PEI. In NB, the existence of well-documented protocols and support from designated personnel (including trained data analysts) were assets facilitating data access through the data repository. In PEI, REB approval was obtained more rapidly but challenges occurred in subsequent stages of data access directly through the health authority. This research supports the empowerment of stakeholders such as Public Health and researchers who are trying to leverage 'big data' resources to address research and practice questions regarding children's health.

Conclusion: Accessing AHD for the project was facilitated by the existence of well-documented protocols and other specialized resources that help streamline the process of data sharing while ensuring data privacy and security. Continued relationship-building among stakeholders is needed to facilitate and maximize the use of existing AHD in NB and PEI.

All Authors: Sarah Sparks, Université de Moncton - University of PEI; Patricia Malinski, University of Prince Edward Island ; Carole C. Tranchant, Université de Moncton; William Montelpare, University of Prince Edward Island; Baukje (Bo) Miedema, ; Margaret Holland,

ID: 450
Author: Dr. Vess Stamenova
Title: A structured approach to developing and testing the value proposition of remote monitoring and self-management tools for COPD patients.
Type of Abstract: Poster

Objectives: The goal of the project was to create a structured approach for value proposition design to assess the potential of a technology-enabled remote monitoring and self-management tool for COPD patients and healthcare providers.

Approach: This study tested a series of value propositions for the CloudDX Kit, a collection of wireless tools to monitor vital signs remotely. They were structured as hypotheses, such as: "COPD patients will be able to use the technology", "knowing their readings will be valuable to patients and healthcare providers", "the technology could detect exacerbations early on and reduce health service use". Healthcare providers were introduced to the technology, and patients were given a chance to use it at home. A series of semi-structured interviews were conducted with patients and providers to learn about their experiences and to test our hypotheses.

Results: Most of the hypotheses could be tested with less than 10 patients within a month of data collection. Most patients were able to use the technology. Patients were interested in knowing their readings, but wanted to know how to act on them. Healthcare providers wanted patients to receive guidance on actions in response to readings, but the tool was designed for remote monitoring, and needed adaptation for self-management. We also found that caregivers were often involved in using the technology, and they wanted to know the readings, suggesting that caregivers represent potential users. Healthcare providers indicated that to support early treatment of exacerbations, the tool should track symptoms, which led to an additional feature to track symptoms.

Conclusion: Determining the value proposition of market ready technologies is essential for the development of new models of care enabled by digital tools. Value proposition design can quickly establish whether a technology offers value to patients and healthcare providers and whether it is ready for broader implementation or rigorous evaluation.

All Authors: Vess Stamenova, Women's College Hospital Institute for Health System Solutions and Virtual Care; Rebecca Yang, WCH ; Magdalene Au, University of Toronto; Daniel Cornejo-Palma, Women's College Hospital; Aman Sidhu, Toronto General Hospital; Laura Desveaux,

Title: Geographic variation in acute care Alternate Level of Care utilization across Nova Scotia
Type of Abstract: Poster

Objectives: High Alternate-Level-of-Care (ALC) utilization – the designation given to patients who remain in an acute care bed post medical discharge – is suggestive of deficits in care integration and efficiency and can lead to adverse patient outcomes. We compare current acute care ALC utilization across Nova Scotia by geographical area.

Approach: Rates of acute care ALC utilization are estimated using data from the Canadian Institute for Health Information Discharge Abstract Database, accessed and linked at Health Data Nova Scotia. The study population comprises the adult Nova Scotia inpatient population for 2014 and 2015 fiscal years. Nova Scotia is divided into nine regions, corresponding to geographical organization of major acute care facilities. Overall and region-specific crude and standardized (age, sex and neighbourhood income quintile) rates of aggregated number of ALC days (numerator) to total number of acute care days (denominator) are calculated. Adjusted rate ratios comparing region-specific standardized ALC rates are presented.

Results: There were 1,518,503 acute care days in Nova Scotia during the 2014 and 2015 fiscal year period, 94.7% of which are linkable to an acute care facility in the nine geographical regions. Of these 16,569 (1.78 ALC days:10 acute care days) were days spent in ALC. The lowest adjusted ALC rate is observed in the most densely populated Halifax Central region (1.11 ALC days:10 acute care days; 95% CI: 1.10-1.12); the highest observed in Annapolis Valley, Cumberland and Pictou County regions. Compared to the Halifax Central region, the adjusted rate ratios for these regions for the study period were 2.47 (95% CI: 2.44-2.50), 2.42 (95% CI: 2.36-2.46) and 2.38 (95% CI: 2.35-2.42), respectively. Adjusted provincial variation in acute care ALC utilization is presented graphically.

Conclusion: There is substantial regional variation in the proportion of acute care resources that are utilized by patients who are awaiting less intensive care settings, irrespective of age, sex or neighborhood household income. These findings will underpin work evaluating contributors to patient flow inefficiencies specific to more rural Maritime regions.

All Authors: David Stock, Maritime SPOR SUPPORT Unit; Adrian Levy, Dalhousie University; Adrian MacKenzie, Maritime SPOR SUPPORT Unit

Objectives: Regional variation in surgery utilization has not been studied extensively in Maritime provinces. Small geography and reliance on interprovincial resources make provision of high-demand surgeries in this region unique. This study compares hip and knee replacement rates within and between Nova Scotia, New Brunswick and PEI over twelve years.

Approach: Hip and knee replacement surgeries for patients ≥45 years were tallied by intraprovincial region of residence (Health Zones for NB; District Health Authorities for NS; forward sortation area for PEI) from hospital discharge abstracts spanning April1, 2001 to March 31, 2013. Surgeries were identified using Canadian Classification of Health Interventions procedure codes 1.VA.53 (hip replacement) and 1.VG.53.XX (knee replacement). Region age- and sex-specific population estimates were obtained directly from Statistics Canada and estimated from Statistics Canada census tables. Age- and sex-adjusted overall, and sex-specific, surgery rates were calculated. Data was accessed at Health Data Nova Scotia.

Results: Rates of hip and knee replacement surgeries increased steadily over the 12-year study period; knee replacement surgeries had the largest increased uptake (Rate Ratio (RR) FY2012:FY2001 NS: 1.64; RR FY2012:FY2001 NB: 1.51; RR FY2012:FY2001 PEI: 3.43). Across all three provinces, utilization of these procedures was higher for women. Intraprovincial variation was greater for knee surgeries than for hip, though less pronounced for PEI. In NS, the NB-bordering Cumberland region had markedly lower surgery rates. Similarly, northern most Edmundston and Bathurst NB regions had the lowest surgery rates in the province. In PEI, surgery rates in Charlottetown region gradually overtook rural PEI regions as the study period progressed. Variation in regional rates are presented graphically over time.

Conclusion: Maritime residents seek surgical care out of province, even when the procedure is offered in their province of residence. The potential for Maritime residents to opt for extra-provincial surgical services closer to home warrants further investigation of localized interprovincial care sustainability and its impact on patient outcomes.

All Authors: David Stock, Maritime SPOR SUPPORT Unit; Adrian Levy, Dalhousie University

ID: 612
Author: Dr. Winnie Sun
Title: Living Well with Dementia: The role of Community-Based Programs in Promoting Social Connectedness for Persons with Dementia and Their Caregivers
Type of Abstract: Poster

Objectives: The purpose of this study is to evaluate the project entitled, 'Living Well with Dementia,' designed by the Alzheimer Society of Durham Region (ASDR) to reduce social isolation for persons with dementia and their caregivers through the development of social/recreational programming; an intervention that is being co-facilitated by community volunteers.

Approach: Persons with dementia (PWD) and their caregivers experience chronic social isolation as a result of the effects of disease and the demands of caregiving. Older adults with dementia are often excluded from mainstream recreational and social programs due to cognitive deficits, and the potential need for personal support and programs are not meeting their unique needs. This research uses qualitative methodology through individual in-depth interviews using a series of open-ended questions to explore the older adults with dementia, caregivers and volunteers' experiences of the ASDR programs.

Results: Preliminary findings revealed the enablers and challenges associated with the programs in relation to providing opportunities for social connections, as well as the impact of the volunteer programs in reducing social isolations for PWD and caregivers. The findings from this study help inform further development of ASDR programs in meeting the unique needs of PWD and caregivers in relation to social engagement.

Conclusion: Our study findings are applicable to community agencies in the development of dementia-friendly community through a better understanding of the needs of PWD and caregivers, as well as identifying the educational training that is necessary for their volunteers to address the challenges of social isolation among older adults with dementia.

All Authors: Winnie Sun, University of Ontario Institute of Technology

ID: 597
Author: Dr. Terence Tang
Title: Evaluating the impact of an electronic communication tool on patient experience, ED visits and re-hospitalization, and care transitions in hospitalized patients (including those with dementia): a mixed methods study
Type of Abstract: Poster

Objectives: Effective communication (among the interprofessional team and with patients/care givers) are essential to providing high quality coordinated care during hospitalizations and at care transitions, and to engage patients. Our objectives are to evaluate the impact of using electronic communication tools on patient experience, ED visits/re-admissions, and care transitions.

Approach: We engaged healthcare providers and patients/care-givers in designing an electronic communication tool to facilitate communication among the healthcare team, and with patients/care-givers. In the patient-facing component, we facilitate care transition by adapting the Patient-Oriented Discharge Summary and making that available electronically after discharge. We are conducting a mixed methods study to evaluate the impact of the tool. The quantitative component uses a quasi-experimental design involving staggered deployment of the tool across 4 wards. The qualitative component uses semi-structured interviews with patients/care-givers and healthcare providers to contextualize the quantitative findings and understand reasons for success and failure.

Results: Quantitative results of this study will consist of patient experience and quality of care transition measured using selected questions from the Canadian Patient Experience Survey - Inpatient Care and the Care Transition Measures (CTM-3) administered as telephone surveys after discharge. Rates of ED visits and re-admissions will be collected using routinely collected administrative data. Quantitative data will be collected from all wards at baseline, 3 months after 2 of 4 wards have used the intervention, and after an additional 3 months when all wards would have used the intervention for comparative analysis. Semi-structured interviews with patients/care-givers and providers will be used to deeply understand their experiences with communication and the tool. Only baseline quantitative data will be available at time of conference.

Conclusion: As modern communication technology are becoming increasingly ubiquitous among all segments of the population, the results of this study will inform how health systems can or cannot leverage such technology to engage patients/care-givers to improve communication, patient experience, and outcomes.

All Authors: Terence Tang, Institute for Better Health, Trillium Health Partners; Sherman Quan, Trillium Health Partners; Christine Heidebrecht, Institute for Better Health, Trillium Health Partners; Elizabeth Mansfield, Trillium Health Partners; Morgan Lim, Trillium

ID: 171
Author: Dr. Vidhi Thakkar
Title: Primary care patients' preferred roles, perceived health information literacy, and trust in physician
Type of Abstract: Poster

Objectives: With the availability of increased health information online, patient engagement strategies need to reflect patients' preferred roles. This study examined patients' preferred roles in health care decision-making, and how they related to such factors as perceived health information literacy, trust in the physician, and demographic variables.

Approach: We surveyed 141 patients visiting the primary care clinic at St. Michael's Hospital in Toronto (response rate 89%), and conducted follow-up interviews with 11 participants. The survey included 3 validated scales –the problem-solving decision-making (PSDM) scale for 'current condition' (CC) and 'chest pain' (CP) vignettes; the e-Heals e-health literacy scale; and the trust in the physician scale -- plus demographic questions such as age, marital status, highest level of completed education, preferred spoken language and ethnicity. The PSDM scores classify preferred roles into one of three categories-- passive, shared, or autonomous.

Results: Participants were highly educated (88% had a college degree or higher) and reflected Toronto's ethnic diversity. Respondents did not wish to take responsibility for PS tasks (e.g., diagnosing their condition, determining risks/ benefits of treatment options), although many wanted to be involved in DM (e.g., treatment choice). Accordingly, most were classified as shared (113 for CC, 94 for CP), some as passive (CC=28, CP=45), and few as autonomous (CC=0, CP=2). Perceived health information literacy was moderately high, and trust in physician very high. Trust was associated with preferring a passive role. Education or age were not significantly related to preferred role. There were statistically significant differences in trust in physicians between patients who preferred shared and passive roles, but not in perceived health information literacy.

Conclusion: Although some current patient engagement models assume patients wish to take an autonomous role, we found that even this well-educated sample with high levels of perceived health information literacy prefer to leave PS tasks to their physician. If they trust their physician, most prefer a shared partnership.

All Authors: Vidhi Thakkar, University of Toronto IHPME; Raisa Deber, University of Toronto; Aviv Shachak, University of Toronto; Nav Persaud, Department of Family and Community Medicine at the University of Toronto

ID: 369
Author: Mr. Patrick Timony
Title: Closing the feedback loop: An innovative method of reporting outcomes from a self-directed continuing education program for physicians.
Type of Abstract: Poster

Objectives: The lack of linguistically concordant interactions between family physicians and Francophones in Ontario has been found to negatively impact the health care experience. This presentation will outline a method of providing feedback to physicians regarding the linguistic appropriateness of their patient interactions while offering targeted literature aimed at enhancing communication.

Approach: Recent patient and provider interviews revealed a gap between Francophone patients, who reported a preference for French-language health services, and family physicians, who believe it is unnecessary to offer services in French given that their patients are bilingual. A self-directed continuing education program was developed to help bridge this gap. The goals of the program were 1) to measure the current offer of French-language services provided by physicians (via patient and provider surveys) and 2) to provide physicians with feedback on the linguistic preferences of patients as well as strategies to enhance the offer of French-language services.

Results: A total of 13 physicians and 245 patients participated in the launch of the program. A short user-friendly report card was developed for each physician to provide them with feedback on their survey results. Five areas of French-language communication competencies were identified: 1) during patient interactions, 2) by way of telecommunications, 3) through visual cues, 4) via the larger workplace culture, and 5) during referrals. The personalised report cards provided physicians with their self-assessed scores, and mean comparator, as well as their patients' evaluation of each area of competency. A brief description of the related communication behaviours and a list of resources which specifically address each competency were also provided. Areas for improvement were highlighted and physicians were encouraged to review the corresponding resources.

Conclusion: This education program appeals to physicians as it is self-directed and particularly relevant to their practice, in that it: provides their patients with an opportunity to express their linguistic preferences, offers feedback on the linguistic appropriateness of the care they are providing, and offers strategies to improve their communication behaviours.

All Authors: Patrick Timony, Centre for Rural and Northern Health Research; Danielle Barbeau-Rodrigue, Northern Ontario School of Medicine; Deborah Smith, Northern Ontario School of Medicine ; Meghan Cusack, Sudbury Family Healthcare Clinic; Boroma Sanou, Centre fo

ID: 276
Author: Dr. Darene Toal-Sullivan
Title: Access to Resources in the Community (ARC): Patient Navigation Integrated in Primary Care and Information Continuity
Type of Abstract: Poster

Objectives: Patient navigation is a patient-centred approach to support access to health services and an important strategy for reducing health disparities. The objective is to describe an innovative patient navigation model integrated within primary care practices and how information continuity supports patients' access to health enabling community resources (CR).

Approach: We conducted a feasibility study to evaluate the potential for a navigation model (ARC) using non-clinical navigators to support patients with social challenges to overcome barriers to access CR. A Navigator was integrated into four primary care practices with time allocated weekly at each site for meetings with patients and primary care providers (PCPs). Because information continuity is an integral aspect of the navigation model, we developed and implemented processes and tools to foster communication between PCPs and the Navigator: standardized PCP referral for CR, Navigator feedback form, and Navigator log detailing patient encounters and interactions with PCPs.

Results: The standardized referral form was an effective tool to facilitate communication between PCPs and the Navigator about the recommended CR for patients' health. The Navigator feedback form provided appropriate and timely information to the PCPs about patients' participation in CR, their needs beyond the scope of ARC navigation (e.g. high medical complexity), and patients' completion of navigation services. The Navigator log revealed that their physical presence within the practice provided an opportunity for on-site discussion about patient needs and for promoting PCPs and staff awareness of the availability of navigation for vulnerable patients. Post-intervention PCP surveys and interviews identified the scope of navigation required to meet the social support needs of patients in primary care, and strategies for effective communication between PCPs and the Navigator.

Conclusion: The ARC feasibility study suggests a model for integrating a navigator within primary care and the need to develop efficient communication strategies for patient access to CR. Plans are underway for sustainability of the model and tool development to capture, evaluate and ensure information continuity among primary and community care.

All Authors: Darene Toal-Sullivan , Bruyère Research Institute ; Claire Kendall, University of Ottawa c/o Bruyère Research Institute; Denis Prud'homme, Institut de recherche de l'Hôpital Montfort; Alain Gauthier, ; Manon Lemonde, University of Ontario Institute of T

ID: 82
Author: Dr. Carole C. Tranchant
Title: Can Administrative Data be Leveraged to Establish a Provincial-Level Child Health Profile and Birth Cohort Database in New Brunswick and Prince Edward Island?
Type of Abstract: Poster

Objectives: To identify and evaluate selected administrative databases (AD) from New Brunswick and Prince Edward Island to create an intra-provincial Child Health Profile (CHP) and establish the foundation for a population-based birth cohort database in each province using existing administrative data.

Approach: This research aims to capitalize on existing administrative data in NB and PEI to produce evidence-based knowledge on the effectiveness of early years interventions for preventing or delaying chronic diseases. Integrated knowledge translation is used to facilitate the continuous involvement of knowledge users and stakeholders in each province, including provincial government managers/decision-makers, data custodians, health practitioners, parents, and community organizations. Consultations and workshops were held to identify the AD of interest, validate research/practice questions and develop a roadmap for the CHP. For each dataset, a list and description of data and analytical variables was produced and data access was requested.

Results: Not all AD identified are equally complete and accessible to researchers. Data access is challenging but feasible. Access to nine AD was requested, mainly healthcare AD, including the Healthy Toddler Assessment. Based on the data currently accessible, the first CHP will focus on data at birth and at 18 months. Other databases (e.g., preschooler assessments) may be included subsequently. An analytic framework was developed for pulling the data together and planning their analyses to produce the CHP. The findings and outcomes will enable various stakeholders to monitor and report on child health over the long term, and to evaluate current practices and future health interventions. They will support a Maritime-based platform of research that will enhance care delivery models focused on prevention.

Conclusion: Select AD in NB and PEI are rich resources for establishing a comprehensive CHP and population-based birth cohort database in each province. Work is underway to access and extract the data and create workable datasets from which the CHP and roadmap for the birth cohort will be developed.

All Authors: Carole C. Tranchant, Université de Moncton; William Montelpare, University of Prince Edward Island; Mathieu Bélanger, Université de Moncton; Baukje (Bo) Miedema, ; Danielle Bouchard , University of New Brunswick ; Martin Sénéchal, University of New Bruns

Title: Evaluation of the components of primary care integration strategies for adults with chronic health conditions: A systematic review
Type of Abstract: Poster

Objectives: The objectives of this systematic review were to: (1) identify and assess the quality of the evidence regarding primary care based integration strategies and their impact on patient outcomes for adults with complex health heeds; and (2) identify and synthesize common organizational components of effective integration strategies.

Approach: We conducted a systematic review, following Cochrane methods utilized by the Cochrane Public Health Group (CPHG). The primary outcome was clinical effectiveness, as determined through clinical and self-reported patient outcomes. Secondarily, we examined the impact on health utilization and costs. The independent variables were primary care based organizational strategies that included integration of services across a minimum of 2 practice sectors for individuals with at least 2 chronic conditions. We are conducting a meta-analysis, using forest and harvest plots, to assess the effect of each integration strategy, and components within each strategy.

Results: Our search identified 2091 abstracts; 583 full-text articles were reviewed; and 38 articles met the predefined inclusion criteria. Data were extracted and assessed for quality with the CPHG tool. Quality of the evidence ranged from: 7 (18%) strong, 12 (32%) moderate and 19 (50%) weak. Study designs included randomized and controlled trials, cohort studies and interrupted time series studies, and were conducted in the USA (15, 40%), Netherlands (4,11%), Australia (4,11%), Scotland (1,3%), Canada (6,16%), Italy (4,11%), France (1,3%), Sweden (1,3%), Finland (1,3%) and UK (1,3%). Patient outcomes assessed included clinical indicators, self-reported changes in health and functional status, admission to hospital and home-care, utilization of health services, costs of health services, and survival/mortality. Data synthesis is ongoing.

Conclusion: Our findings extend previous research, as we will identify the effective components within system-level integration strategies. Our research will contribute new knowledge relevant to the primary health care reform strategies, specifically the planning of effective primary care based integration strategies.

All Authors: Joan Tranmer, Queen's University; Julia Lukewich, Memorial University; Dana Edge, Queen's University; Shabnam Asghari, Memorial University; Megan Kirkland, Memorial University; Jennifer Ritonja, Queen's University; Genevieve Pare, Queen's University; Eliz

ID: 10
Author: Dr. Marc-Olivier Trepanier
Title: Effect of advanced practice nurse-led interventions on hospital services use by the elderly
Type of Abstract: Poster

Objectives: Within the local context in Montréal, the elderly population makes up more than 50% of patient hours in emergency departments. The objective of this rapid response was to summarize the scientific literature on the impact of advanced practice nurse (APN)-led interventions on hospital services use by the elderly population.

Approach: The UETMIS-SS was requested to conduct an umbrella review to evaluate interventions aimed at reducing health care services use for the elderly population. The PRISMA statement was followed to review the scientific literature. Systematic searches were conducted in five databases, along with a grey literature search. Two reviewers performed the study selection, quality assessment using the ROBIS, and data extraction. The UETMIS-SS was asked to further evaluate the efficacy of APN-led interventions. The primary studies within the selected systematic reviews were extracted by two reviewers and a meta-analysis was conducted to analyze the efficacy of APN-led discharge planning and transitional care.

Results: From the 27 systematic reviews identified in the literature search, 4 reported data on APN-led interventions. Sixteen primary studies with data on hospital services use following APN-led interventions were included in the 4 systematic reviews. While most studies focused on transitional care, there was heterogeneity in the components of the interventions. At 6 months post-discharge, a significant reduction of 41% in relative risk of readmission was observed with APN-led comprehensive discharge planning and transitional care with patient education, follow-up and services coordination. Studies with fewer components reported less significant results than studies with more comprehensive interventions. The few APN-led primary care studies identified in the systematic reviews reported inconsistent results.

Conclusion: APN-led comprehensive discharge planning and transitional care can reduce hospital readmission rate. Several components were identified and should be considered in the discharge planning and transitional care

All Authors: Marc-Olivier Trepanier, Centre intégré universitaire de santé et service sociaux de l'Ouest-de-l'Île-de-Montréal; Maggy Wassef, Centre intégré universitaire de santé et de services sociaux de l'Ouest-de-l'Île-de-Montréal ; Sylvie Beauchamp, Centre intégré

ID: 332
Author: Ms. MON TUN
Title: Is mode of delivery associated with increased risk of hospital care in childhood for asthma and gastroenteritis?
Type of Abstract: Poster

Objectives: Caesarean section(CS) delivery disturbs the neonatal gut microbiota development and impairs the immune system development.CS delivered infants have an increased risk of asthma and gastroenteritis requiring hospitalizations.To investigate the effect of CS on emergency room attendance or hospitalization with gastroenteritis/asthma in a large population-based cohort of infants delivered in Alberta.

Approach: This retrospective study cohort included 438,659 term singleton live births in Alberta from 2005-2014. The study cohort was developed by linking multiple administrative health databases. Infants delivered by CS delivery were compared to those delivered vaginally. We employed generalized estimating equations (GEE) approach with a logit link (OR) and exchangeable correlation structure to examine the associations between CS delivery and emergency room attendance or hospitalization with gastroenteritis or asthma. All analyses were adjusted for gestational age, sex, birth weight, maternal age, maternal asthma and NICU admission.

Results: A higher percentage of male infants were delivered by CS (53.16% vs. 46.84%). In comparison with infants born vaginally (322,875, 73.61%), infants born by CS had a greater risk of emergency room visit and hospitalization with gastroenteritis (aOR 1.14, 1.12-1.16, aOR 1.15, 1.08-1.23), and at increased risk of asthma requiring emergency department attendance (aOR 1.05, 1.02-1.09). However, there were no significant differences in risk of hospitalization with asthma in CS delivered infants.

Conclusion: There is a significant increase of the risk for emergency room visit with gastroenteritis and asthma and asthma requiring hospitalization. Further studies are needed to explore the underlying casual mechanisms.

All Authors: MON TUN, University of Alberta; Mike Paulden, University of Alberta ; Radha Chari, University of Alberta; Padma Kaul, University of Alberta ; Anita Kozyrskyj, University of Alberta

ID: 153
Author: Ms. Jasmine Tung
Title: Investigating disparities in cancer by linking the Canadian Cancer Registry to survey and administrative databases: a collaboration between the Canadian Partnership Against Cancer and Statistics Canada
Type of Abstract: Poster

Objectives: The Canadian Partnership Against Cancer (the Partnership) collaborated with Statistics Canada (STC) to build individual level datasets that will allow researchers to investigate the relationship between sociodemographic factors, cancer outcomes and treatment patterns in Canada.

Approach: The record linkage was conducted at STC within the Social Data Linkage Environment. Data from the CCR were linked to the Discharge Abstract Database (DAD), the National Ambulatory Care Reporting System (NACRS) and the Canadian Vital Statistics Death Database (CVSD) to obtain treatment information and death outcomes. To obtain sociodemographic information the following datasets are also being linked: T1 Personal Master File (income), Immigrant Landing File (immigrant status, class and category) and the Census Long Form (education and geography). Linkage of all datasets is expected to complete by the end of January 2019.

Results: The Partnership reports on pan-Canadian system performance across the cancer control continuum, including how sociodemographic disparities create barriers in access and utilization of cancer control services. This has been done using mostly ecological data, which does not contain the individual level information required to identify the extent of these disparities. For the first time in Canada, record-level linkage of national cancer registry data with key datasets containing sociodemographic information will be available for exploratory analysis. The challenges with linkage and data limitations will be discussed, as well as the application of these linked databases to answer current disparities-related research questions.

Conclusion: This initiative illustrates the value of collaboration between data custodians and health researchers as well as how linkage of existing datasets can leverage the full potential of available data, and broaden cancer research in supporting efforts to create a more equitable cancer control system.

All Authors: Jasmine Tung, Canadian Partnership Against Cancer; Jennifer Chadder, Canadian Partnership Against Cancer ; Cheryl Louzado, Canadian Partnership Against Cancer; Yves Decady, Statistics Canada; Shirley Bryan, Statistics Canada; Yubin Sung, Statistics Canada

ID: 74
Author: Dr. Adam Vaughan
Title: The complex nature of overdoses: The need for a comprehensive substance use and mental health policy framework
Type of Abstract: Poster

Objectives: From a health policy lens, substance use and mental illness are often considered independent. The aims of this paper is to: explore the complex emergency service use history within the population of substance users and to discuss these results as they relate to current and future health policy.

Approach: In order to assert that such policy should be considered, this paper uses a hospital administrative data from a medium-sized, and rapidly growing, Health Authority in the Greater Vancouver Regional District of British Columbia to explore the spectrum of overlap between substance use and mental illness. More specifically, we will use group based trajectory modelling to identify latent clusters of individuals or taxonomies of overdose patients that present to the Emergency Department (ED) over a 9 ½ year (2008-2017) time frame.

Results: Results indicate there were 32, 024 overdose presentations within duration of the study. Given the recent opioid crisis in British Columbia, the data clearly show a significant increase in overdoses in late 2016. The count distribution of the number of ED hospital visits per patient which will be used for statistical modelling, suggests a spectrum of service use among the population. There appears to be a small subset of 'heavy users' who have frequent and cycling ED presentation patterns related to substance use and mental illness. On the other hand, there is a sizable cohort of patients with only one overdose ED presentation.

Conclusion: The recent spike in opioid-related overdoses illustrates the need to improve the current health policy approach in B.C. (and North America more generally). This study highlights the urgent need to develop a comprehensive health policy framework to address the complex health needs of a subset opioid users.

All Authors: Adam Vaughan, MSFHR; Denise Zabkiewicz, Simon Fraser University; Johann Brink, BC Mental Health and Substance Use Services, PHSA; Jane Buxton, University of British Columbia

ID: 531
Author: Dr. Shelly Vik
Title: The Alberta Primary Health Care Integration Network – Partnerships and Priorities
Type of Abstract: Poster

Objectives: Strategic Clinical Networks™ (SCNs) at Alberta Health Services (AHS) are innovative groups focused on improving health system quality, efficiency, and patient outcomes. Partnerships, early priority setting and strategies to facilitate health system co-design being developed by the most recently launched SCN, the Primary Health Care Integration Network (PHCIN), are discussed.

Approach: The structure of the PHCIN was developed in partnership with the Primary Care Alliance. As most primary care physicians in Alberta deliver services external to Alberta Health Services, this collaborative process is foundational to activities focused on development of an integrated health care system that supports patients across the care continuum. Early priority setting was based on the results of an environmental scan and in consultation with multiple stakeholder groups. The PHCIN is currently developing a framework to facilitate co-design of research initiatives involving primary care providers, patients and AHS operational leaders targeted at the identified priority areas.

Results: Four areas were identified as early priority issues for the PHCIN; 1) issues related to transitions between acute and primary care services, 2) access to specialty services, 3) enhancing care in the community and 4) system foundations for integration. Several research initiatives are underway in Alberta that could potentially be leveraged to address the priority areas, although early engagement indicates that likelihood of implementation and uptake among primary care providers could be strengthened by a co-design approach. The PHCIN has initiated work with academic partners and internal AHS researchers to explore strategies involving co-design with multiple stakeholder groups to align research initiatives with the needs of patients and primary care providers, and enhance the likelihood of spread and scale of successful initiatives.

Conclusion: Alberta`s PHCIN is an innovative approach to bridging the gap between primary health care and other sectors of the system. Early PHCIN work will focus on development of strong partnerships with multiple stakeholder groups and a focused research agenda to promote and accelerate system integration and enhance patient outcomes.

All Authors: Shelly Vik, Alberta Health Services; Judy Seidel, Alberta Health Services; Brad Bahler, Primary Health Care Integration Network; Rob Skrypnek, Primary Health Care Integration Network; Julie Shellenberg, Integration and Innovation Primary Health Care

ID: 403
Author: Mr. Edmund Walsh
Title: The Mediating Influence of Psychological Capital and Professional Practice Environments on the Relationship Between Authentic Leadership and Bullying Among Experienced Registered Nurses
Type of Abstract: Poster

Objectives: The purpose of this study is to examine the relationship between authentic leadership of managers and workplace bullying among experienced registered nurses. Moreover, this study will investigate whether and to what extent nurses' psychological capital (i.e., hope, optimism, resiliency, and self-efficacy) and professional practice environments mediate the aforementioned relationship.

Approach: This nonexperimental, correlational study is a secondary analysis of time 1 (2015) data from the Survey of Nursing Worklife: Experienced Nurses Survey from the Authentic Leadership for New Graduate Nurse Success study. Standardized, self-report questionnaires were mailed to a random sample of 1,197 experienced (i.e., two or more years of practice) registered nurses in Alberta, Nova Scotia, and Ontario (n = 399 per province), with a response rate of 39.9% (n = 478). SPSS (version 23) will be used to analyze data. Hayes' (2013) SPSS macro, PROCESS, will be employed to test the double mediation model.

Results: Experienced registered nurses who report that their managers exhibit higher levels of authentic leadership, a leadership style characterized by self-awareness, balanced processing, internalized moral perspective, and relational transparency, are anticipated to report higher levels of psychological capital, more positive professional practice environments, and lower levels of bullying. Furthermore, it is reasonable to suggest that higher levels of psychological capital and more positive professional practice environments will be negatively related to experiences of bullying. Based on theory and previous findings, it is expected that the relationship between authentic leadership and bullying will be mediated by psychological capital and professional practice environments.

Conclusion: The intent of this research is to inform pragmatic policy changes regarding the recruitment and evaluation of managers and the prevention and mitigation of bullying. Furthermore, understanding how authentic leadership influences bullying may help facilitate the creation or enhancement of training programs and, in turn, promote healthier workplace environments.

All Authors: Edmund Walsh, Western University; Carol Wong, Western University; Emily Read, University of New Brunswick; Heather Laschinger, Western University

ID: 13
Author: Ms. Mei Wang
Title: Barriers and facilitators to oral anticoagulants management: a scoping review
Type of Abstract: Poster

Objectives: Optimal anticoagulation management can improve health outcomes and health care sustainability. The objective of this scoping review was to explore factors identified in the literature, categorized as barriers or facilitators, and then synthesize qualitative information on their influence on the quality and effectiveness of oral anticoagulant (OAC) management in practice.

Approach: We searched MEDLINE, EMBASE, and CINAHL electronic databases until June 14, 2017, and cross-checked the bibliographies of the retrieved studies. We included quantitative and qualitative studies that assessed barriers and facilitators (B&Fs) to OAC management. The study selection and data extraction processes were performed in duplicate. Methodology quality of the selected articles was assessed according to design-specific reporting guidelines. Analyses included measuring the prevalence of reported B&Fs from studies reporting quantitative data, identifying B&Fs in narrative analyses, and identifying the impact of B&Fs in intervention studies. B&Fs were coded and aggregated to higher-level themes using a consensus approach.

Results: We included 56 studies: 9 qualitative, 34 observational, 10 mixed methods studies, and 2 randomized controlled trials. Participants, including both OAC patients and health care providers, totalled 95,468 (ranging from 11 to 56,490 per study). The overall mean methodology reporting quality score was 51% with only three articles scoring 80% or above. Four key themes of B&Fs were identified: 1) therapy-related factors (11 barriers and 7 facilitators); 2) patient-related factors (36 barriers and 17 facilitators); 3) healthcare provider-related factors (20 barriers and 12 facilitators); and 4) health system-related factors (17 barriers and 24 facilitators). Prominent barriers included the impact of OACs on patients' lifestyle, bleeding risk, and negative attitudes. The facilitators were more focussed on education and better healthcare system support.

Conclusion: This review explored the barriers and facilitators to OAC management. The identified factors will serve as potential targets for interventions to improve overall health outcomes and advance the development of effective strategies to improve the quality of life for patients taking OACs.

All Authors: Mei Wang, McMaster University; Anne Holbrook, McMaster University

Objectives: To meet ministerial targets for length of stay, the UETMIS-SS was requested to conduct an umbrella review to evaluate interventions to improve fluidity of patient trajectories in acute care services. This report evaluates the effectiveness of discharge planning and transitional care aiming at reducing the readmission rate for the elderly

Approach: An umbrella review was conducted following the PRISMA statement to summarize the scientific evidence. The search was conducted in five databases along with the grey literature search. Two reviewers independently performed the study selection, the quality assessment and the data extraction. Results were summarized in a narrative synthesis following the illustration of the interventions' activities in an analytical framework. The contextual and experiential data were collected through interviews with HCP and directorates from different settings. The level of evidence was set taking into consideration the scientific, contextual and experiential evidences. A committee was then held to elaborate the recommendations.

Results: In the 8 systematic reviews included in the narrative synthesis, three models were identified: Post-discharge planning and follow-up by the same Healthcare professional (HCP) was established to be effective in reducing the readmission rate. Discharge planning interventions with follow-up by non-specific HCP have been shown to be promising, while discharge planning without follow-up after the hospital discharge has shown to be ineffective in reducing the readmission rate. These data were supported by the contextual and experimental data. Other factors were identified as key factors like patient's education, implication of a nurse in the process, as well as starting the first follow-up contact within the first week after discharge.

Conclusion: An individualized discharge plan, coordination of services and follow-up performed by the same healthcare professional are established to be effective in reducing readmission rate. Six recommendations regarding the discharge planning and the transitional care for the elderly were elaborated taking into consideration the contextual and the experimental data.

All Authors: Maggy Wassef, Centre intégré universitaire de santé et de services sociaux de l'Ouest-de-l'Île-de-Montréal ; Marc-Olivier Trepanier, Centre intégré universitaire de santé et service sociaux de l'Ouest-de-l'Île-de-Montréal; Sylvie Beauchamp, Centre intégré

ID: 376
Author: Dr. Andrea Wilkinson
Title: Developing a Composite Quality Score to Support Performance Improvement in Long Term Care
Type of Abstract: Poster

Objectives: Develop a composite quality score to (1) proactively identify risk areas for improvement in long term care (LTC), and (2) act as a tool to assist homes in devising a prioritized action plan.

Approach: Using a number of existing data sources on quality and performance of LTC homes, we will create a composite quality measure for all LTC homes in Ontario. Existing data sources include, but are not limited to, continuing care reporting system (CCRS), long term care home quality inspection program (LQIP), and Health Quality Ontario's (HQO) publicly reported indicators.

Results: An initial quality score metric is proposed based on regression analysis of existing data, using key indicators (such as activities of daily living, falls, use of antipsychotic medications, etc.) as proxies of quality for the purposes of tuning the quality prediction model. The development of the index will also integrate discussion with key stakeholders, information pulled from relevant literature and a review of existing quality measures.

Conclusion: The utility of existing quality data in LTC can be enhanced by combining discrete measures to create a quality index that is consistent with observable relationships with proxies in the data. The resulting quality scores can then be used to drive action plans for performance improvement within homes.

All Authors: Andrea Wilkinson, Ontario Long Term Care Association (OLTCA); Vinita Haroun, OLTCA; Nancy Cooper, OLTCA; Tommy Wong, OLTCA; Mark Chignell, University of Toronto

ID: 5
Author: Ms. Dinsie Williams
Title: Facilitating Equitable Access to Medical Devices in a Resource-Deprived Healthcare System
Type of Abstract: Poster

Objectives: The objective of this study was to validate a method for eliciting the perspectives of frontline staff on best practices to facilitate sustainable access to donated medical devices in hospitals located in resource-deprived settings.

Approach: We develop a case study using a three-pronged qualitative research process. The case study was based on a review of institutional documents, interviews of frontline staff at 21 hospitals across Ghana, and direct observation. We completed a critical appraisal of national guidelines for clarity, completeness, and comprehensiveness. Two reviewers coded interviews to identify words, concepts, and ideas relevant to accessing medical devices in resource-deprived settings. Finally, photographs of devices were compiled to document variation in available devices. Triangulation of these three sources of data created a comprehensive account of barriers and facilitators to accessing medical devices.

Results: Fifty-seven (57) key informants underscored the importance of developing policies to facilitate sustainable access to medical devices through transnational funders. These policies must promote communication and collaboration during acquisition of medical devices, and ensure quality, functionality, and appropriateness of medical devices. They suggested that frontline staff must be included in performing needs assessments, defining specifications for devices, and in installing or commissioning medical devices within hospitals. They also highlighted the importance of establishing mechanisms to support management oversight of medical devices over an extended period. Majority of hospital management teams did not have a qualified engineer or technical expert to represent the voices of biomedical technicians; whereas, clinical and administrative staff were represented by chief medical officers and other administrators.

Conclusion: Findings from the study suggest that equitable access to medical devices can be facilitated by involving frontline staff in decision-making processes and establishing management oversight of devices within hospitals. Lessons learned using a novel approach in government-run hospitals in Ghana are instructive to the rural Canadian context.

All Authors: Dinsie Williams, University of Toronto; Jillian Clare Kohler, University of Toronto; Zubin Austin, University of Toronto; Yu-Ling Cheng, University of Toronto; Andrew Howard, University of Toronto

ID: 381
Author: Dr. Don Willison
Title: Governing Principles and Process for Diabetes Action Canada's Data Repository for Patient-Oriented Research
Type of Abstract: Poster

Objectives: Diabetes Action Canada is developing a data repository to support research (data studies, observational studies, and RCTs), QI, and service that will improve diabetes care. Our objective was to design a research governance framework and operational model for the data repository and patient registry to support these functions.

Approach: Through literature review and a combination of surveys and interviews of key informants involved with similar repositories internationally, we developed a principles-based governance framework and operational model, with a strong focus on patient participation in the governance process. We recruited patients through our pre-existing patient advisory circles and physicians through our partners in the Canadian Primary Care Sentinel Surveillance Network (CPCSSN). In January 2018, we held a training workshop for Research Governing Committee (RGC) members.

Results: We identified eight values-based principles to guide our governance process:

- transparency;
- accountability;
- following the rule of law;
- integrity of purpose, science and ethics;
- participation and inclusiveness;
- impartiality and independence; effectiveness,
- efficiency and responsiveness; and
- reflexivity and continuous quality improvement of process.

Patients represent 50% of RGC members and healthcare professionals (HCPs) 20%. Patient members provide their perspectives on goals and outcomes of the research; the benefits and burdens among people living with diabetes; and the communication preferences of patients around the recruitment process. HCPs provide a deep understanding of the settings and systems in which care is provided to ensure contextual integrity of the research.

Conclusion: The research governance process is still new and we are refining operational aspects. We feel our approach to review of protocols addresses an important niche that adds value to the overall research governance process by emphasizing patient and healthcare provider perspectives on the research.

All Authors: Don Willison, Institute of Health Policy, Management and Evaluation, University of Toronto; Frank Sullivan, University of St. Andrews; Joslyn Trowbridge, Dalla Lana School of Public Health; Michelle Greiver, UTOPIAN

Objectives: Ontario's Quality-Based Procedure funding policy remunerates some hospital care on a per-case basis. Cases with Intensive Care Unit (ICU) use receive a higher weight and payment. ICU use is a supply-sensitive service possibly driven by provider behaviour. This funding policy research evaluates variation in payments attributable to ICU utilization.

Approach: Cancer Care Ontario remunerates hospitals for cancer surgeries on a volume x price x average cost weight basis. The Canadian Institute for Health Information's (CIHI) resource intensity weight (RIW) methodology for Ontario inpatient stays was replicated.   To measure the impact on payments, the amount that ICU utilization contributes to patients' RIWs for each hospital was calculated. To assess whether variation could be attributed to demographics, age and sex standardized utilization rates were calculated. To measure whether there was an association between ICU use and indicators of care quality, 30 day readmissions and 30 day ER visits were calculated.

Results: There is significant variation in ICU utilization across hospitals that is independent of quality care. For colorectal cancer surgery, there is a five-fold difference in age- and sex- adjusted rates of ICU use. ICU utilization is significantly higher amongst small and medium hospitals than larger hospitals. Policy options to address unwarranted variation are explored. Funding policy options include reducing payment amounts associated with ICU use above a clinically defined threshold. Alternatively, interventions designed to dampen regional variations, such as clinical review of a sample of charts to evaluate appropriateness of ICU admissions could be implemented.

Conclusion: CIHI's current methodology for calculating RIWs and Ontario's use of these weights in calculating hospital payments are affected by variation in provider-driven ICU use, and unassociated with higher quality care. Ontario's current funding policy of paying for unwarranted variation in hospital care should be reevaluated.

All Authors: Judith Wong, Cancer Care Ontario; Shannon Milroy, Cancer Care Ontario; Jonathan Wiersma, Cancer Care Ontario; Jason Sutherland, University of British Colombia

Author: Ms. Lisa Wozniak
Title: Toward a better understanding of the organization of type 2 diabetes care in 6 First Nations communities in Alberta
Type of Abstract: Poster

Objectives: Diabetes care is suboptimal in First Nations (FN) populations. One strategy to improve care is a model integrating a disease registry and electronic medical record for community healthcare workers with centralized care coordination. We aimed to describe the organization of type 2 diabetes care in participating FN communities at baseline.

Approach: We used qualitative description to describe healthcare workers' perceptions of the organization of type 2 diabetes care at health centers in participating communities prior to the new model. With the help of health managers, we purposefully sampled healthcare workers most involved in diabetes care. To achieve consensus regarding organization of care, respondents in each community were invited to participate in a group interview via telephone. We used Diabetes Canada's 5Rs framework for organizing care to inform the interview guide. Detailed notes were taken during interviews and validated by participants. Data was managed using ATLAS.ti 8 and analyzed using content analysis.

Results: We conducted 1 group interview in each of the 6 FN communities with 16 healthcare workers including registered nurses, licensed practical nurses, and health managers. We found strong commitment and effort by local healthcare workers to support patients with type 2 diabetes. However, they were restricted in their ability to identify, track and manage these patients. Often, care was reactive and dependent on patients' abilities to engage with and navigate the health system. Of note, healthcare workers discussed the components of organizing care (i.e., identifying, tracking and managing patients) in relation to each other. In addition, they situated the organization of type 2 diabetes care within the context of relationships with other healthcare providers and the availability of sufficient financial and human resources.

Conclusion: We propose reimagining the framework for organizing care by reflecting the interdependence of components within the context of resources. With new models of care, this has the potential to support FN community capacity to organize diabetes care. However, the onus on patients to engage with healthcare services remains a concern.

All Authors: Lisa Wozniak, University of Alberta; Jeffrey Johnson, School of Public Health, University of Alberta ; Sumit Majumdar, University of Alberta Department of Medicine; Salim Samanani, Okaki Health Intelligence Inc.; Kari Meneen, Okaki Health Intelligence Inc

ID: 576
Author: Mr. Matthew Yau
Title: Sustainable Financing for Infant Hearing Impairment Interventions: An Overview of Global Strategies
Type of Abstract: Poster

Objectives: This review aims to provide an overview of the evidence regarding cost-effectiveness and feasibility of pediatric hearing-oriented interventions. Global best practices differ widely with regards to the type and delivery of interventions. A review of screening, prevention, treatment, and delivery programs could inform the future of Canadian deaf treatment standards.

Approach: A preliminary literature review was conducted to provide foundational background knowledge on the state of national hearing intervention programs. A systematic scoping review of studies centered on economic analyses for paediatric hearing-oriented interventions was conducted on the following databases: OVID Medline, Web of Science, Google Scholar, and Health Systems Evidence. References of included studies were searched to identify other relevant studies. A narrative synthesis was conducted to determine themes and lessons from a global context that would be of interest to Canadian policymakers.

Results: 33 studies conducted in India, the United Kingdom, China, Bavaria, Spain, Nicaragua, the United States, and Canada evaluated the cost-effectiveness of pediatric hearing-oriented interventions. Despite vast disparities in the method in which healthcare is delivered, several commonalities were identified. Universal hearing impairment screening was widely determined to be the most cost-effective intervention. When measured by a variety of health quality metrics (QALY, DALY), universal screening was consistently effective across most jurisdictions compared to WHO cost-effectiveness threshold. As only 6 Canadian provinces provide universal screening services, there is significant potential for cost-effective reform in Canada's future health system. Adapting a universal screening service is an evidence-informed, financially shrewd decision that is a step towards attaining health equity across provincial lines.

Conclusion: The majority of research concluded that universal hearing impairment screening programs for infant populations were cost-effective compared to both passive screening and targeted screening. Further research on the political capital needed to integrate and implement screening programs in the remainder of Canadian provinces and territories is needed.

All Authors: Matthew Yau, McMaster University; Chantal Graveline, Canadian Hearing Society; Shannon Leung, McMaster University; Abi Kirubarajan, University of Toronto; Thomas Yau, McMaster University; Ojan Yarkhani, McMaster University

Title: Home-Based Medical Diagnostic Services for Older Adults in Urgent, Low Acuity Situations: A System Level Snapshot of Current Challenges and Motivations
Type of Abstract: Poster

Objectives: For urgent, low acuity situations, medical practitioners who provide home care, often do not have access to basic diagnostic tests required to diagnose their clients' conditions. Frequently, these patients end-up receiving care in the emergency department. This study explores the possibility of providing diagnostic services (imaging, laboratory, electrocardiography) at home.

Approach: Stakeholders who provide care directly or indirectly to older adults within public, not-for-profit, and private sectors were recruited. Semi-structured interviews and focus group meetings were held to better understand: (1) current challenges and supports to providing medical care to older adults with complex care needs in urgent, lower acuity situations; (2) perceived benefits of and barriers and facilitators to providing coordinated medical care and diagnostic testing for these situations and this target cohort at home; (3) the patient cohort best served using this care provision model; (4) the essential technologies, resources and supports required to implement this care provision model.

Results: 39 stakeholders were interviewed as part of this study, including caregivers and primary care providers, allied health care providers, and healthcare administrators within public, not-for-profit, and private sectors. Conversational data were examined using Thematic Analysis and informed using Damschroder et al.'s (2009) Consolidated Framework for Implementation Research (CFIR). Results indicate agreement across stakeholders that providing diagnostic services at home would benefit older adults with complex care needs; however, there were differences in opinion as to patient acuity level for receiving this service. Challenges faced by current private, mobile-based, diagnostic service providers include limitations in service provision locations, service hours, and ability to provide rapid results turn-around. Other barriers to implementation include communication, logistics, and current policies affecting practice capabilities.

Conclusion: Older adults with urgent but lower acuity conditions who end-up in emergency may experience extended wait times and hospital acquired complications (infection, functional decline, delirium). This research identifies possible implementation considerations and benefits for providing diagnostic services in combination with medical care at home for these individuals and situations.

All Authors: Victoria Young, York Region Paramedic and Seniors Services / University Health Network - Toronto Rehabilitation Institute / University of Toronto; Veronique Boscart, Conestoga College Institute of Technology and Advanced Learning; George Heckman, Universi

Title: The Implications of Language Barriers Among Iranian Older Adults in South-Western Ontario: A Qualitative Analysis
Type of Abstract: Poster

Objectives:

- To examine the role of language as a barrier for accessing social and health care services among elderly Iranian immigrants in Canada
- To identify strategies that can minimize the negative implications of language barrier in accessing social and health care services for older Iranian immigrants

Approach: This study utilizes a qualitative methodological design. Distributing flyers at community centres and nursing homes, we recruited 20 participants from Iranian communities in South-Western Ontario to participate in semi-structured interviews. Employing triangulation method, we purposively sampled participants from older adults (ages 60+) who immigrated from Iran (n=9), their unpaid caregivers (n=8) – children and partners – health care professionals with the experience of working with older adults (n=3). The interviews focused on social adaptation of older adults from Iran to the life in Canada. The theme of language as a key barrier emerged inductively during the thematic analysis.

Results: Our findings indicate that while Iranian immigrants face a wide array of challenges in accessing social and health care services in Canada, language proficiency is the most critical barrier. Inability to communicate in English has been identified by our participants as a key barrier to utilization of social and health care services. Moreover, older adults believed that lack of proficiency in English had created dependency on their caregivers; meanwhile, caregivers believed that they did not have sufficient resources to provide social support to their family members. Our participants suggested that community-based programs offered in Farsi would improve social integration for Iranian-speaking older adults. Such programs can reduce social isolation among older adults who immigrated from Iran and lower caregiver stress among their children and partners.

Conclusion: Language barrier is identified as a social obstacle for elderly Iranian immigrants. Future policies could fund recruitment of bilingual healthcare professionals, day programs specific to older immigrants' social needs, research projects that focus on effective interventions to enhance older Iranians' proficiency in English, and coping workshops for their caregivers.

All Authors: Aein Zarrin, University of Waterloo; Teeyaa Ibrahim Nur, University of Waterloo; Elena Neiterman , University of Waterloo ; George A. Heckman, University of Waterloo; Roghiyeh Nazari, University of Waterloo

ID: 585
Author: Dr. Jinan Zeidan
Title: Progress, Challenges, and gaps for autism policy in Quebec
Type of Abstract: Poster

Objectives: In the wake of increasing prevalence rates of Autism Spectrum Disorder (ASD) and concerns regarding the availability and quality of services offered to those affected, we aim at identifying and analyzing existing policies related to ASD in Quebec.

Approach: Policy documents were searched on government websites as opposed to formal databases. We identify policy priorities reflected in policy documents using a thematic analysis. Further, we investigate whether these policies reflect social justice principles as defined by both national and international frameworks, namely the United Nations Convention of the Rights of Persons with Disabilities (UN CRPD), and the social determinants of health specific to Canada. Through this policy framework analysis, our aim is to identify gaps across existing policies and how the 2017 action plan addresses these gaps

Results: Overall, autism policies articulated at the provincial level in Québec are comprehensive, well grounded in international and national framework and consistent with international human rights principles. Root causes of challenges currently confronting the policy environment in Quebec include limitations in specific measures to address long standing and well understood barriers, adoption of a person-centred approach across the lifespan, recognition of economic costs associated with autism, and utilization of evidence. The 2017 plan marks an advance towards improving services for those affected but major questions remain unresolved with regards to the enactment of measures identified and turning them into concrete reality.

Conclusion: Knowledge about existing policies can empower families and service providers about their rights and advocate for better services. At the same time, research can inform policymaking through the development of benchmarking for policy to practice and providing information about families' needs and service usage. Future research could inform this process

All Authors: Jinan Zeidan, McGill University; Mayada Elsabbagh, McGill University; Keiko Shikako-Thomas, McGill University; Ehsan Annahita, University of Lausanne

ID: 462
Author: Mr. Michael Zoratti
Title: An exploratory analysis of predictors of concordance between Canadian Common Drug Review reimbursement recommendations and the subsequent decisions by Ontario, British Columbia, and Alberta
Type of Abstract: Poster

Objectives: The first objective is to evaluate the level of concordance between Common Drug Review (CDR) recommendations and the reimbursement decisions by the Ontario, British Columbia, and Alberta public payer drug plans. The second objective is to evaluate potential predictors of concordance based on the reasons for recommendation cited by CDR.

Approach: Recommendation-decision pairs will be collected from publicly available documents published by CDR and the respective provincial plan administrators. Recommendations will be coded as 'Positive' regardless of whether they are conditional. Predictors of concordance, which have been generated through a review of a sample of CDR recommendations, will be evaluated in each published CDR recommendation as: Present, in favour of a positive recommendation; Negative, against a positive recommendation; or Not referenced. For each province-CDR set, concordance will first be evaluated by kappa. Each proposed predictor will then be evaluated by logistic regression to determine its ability to predict concordance.

Results: The predictors of concordance include clinical evidence, such as safety and comparative efficacy, economic evidence, such as costing and incremental cost-effectiveness ratios, certainty or consistency in the evidence, and the methods by which evidence was generated or synthesized. This work is not complete as of the abstract submission deadline, but results will be finalized ahead of the meeting date.

Conclusion: The reimbursement process for public-funded drug plans in Canada is complex, with multiple decision makers across jurisdictions. Moreover, CDR recommendations are non-binding, with listing decisions left to the discretion of the plan payer. Through this work, we describe recommendation-decision patterns and propose characteristics of submissions that may transcend jurisdictional boundaries.

All Authors: Michael Zoratti, McMaster University; Kristian Thorlund, McMaster University; Mitchell Levine, McMaster University; Nicola Allen, Precision for Value; Feng Xie, Department of Health Research Methods, Evidence, and Impact (formerly Clinical Epidemiology an