

A1.1 - Assessing the Experiences of Immigrants Receiving Primary Healthcare during COVID-19: A mixed-methods study

Presented by: Bishnu Bajgain

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Background and Objectives: The entire healthcare system, including primary healthcare (PHC) services, has been disrupted since the onset of the COVID-19 pandemic. As the crisis threatens all citizens significantly, further barriers to accessing care exist for those who are most vulnerable, experience marginalization, and have pre-existing challenges. We aimed to explore immigrants' lived experiences in accessing and receiving PHC services during the COVID-19 pandemic in Calgary, Alberta.

Approach: A multiphase mixed-methods study using a sequential explanatory design was employed. The first study includes a systematic review that synthesizes the evidence on the experiences of immigrant patients who have received PHC. Study two provides insights from a recently employed "COVID-19 Experiences and Impacts Survey" data and compares the experiences of Albertans who were born in and outside Canada. Descriptive statistics and multivariable logistic regression were performed using STATA. The third study is a qualitative inquiry; aims to gain a deeper understanding of the newcomers' and providers' experiences in PHC during the pandemic. Thematic analysis was applied using NVivo software.

Results: The literature review revealed four major concerns affecting the healthcare experiences of immigrant patients: cultural and linguistic differences, socioeconomic challenges, health system factors, and patient-provider relationships. The survey data (n=10,175) showed that Canadian-born were more likely to report worsening mental health during the pandemic; higher levels of perceived stress, anxiety/depression compared to non-Canadian-born. Canadian-born were more likely to prefer virtual healthcare compared to non-Canadian-born. Both cohorts reported that delayed care during the pandemic negatively impacted their health. The qualitative inquiry included 23 interviews (15 newcomers, 8 providers) revealed three aspects driving newcomers' and healthcare providers' experiences: overall experiences (doctor-patient-relationship, care coordination, expectation on care), virtual care experience (accessibility, communication), challenges in accessing and receiving healthcare (language/cultural difference, care accessibility, health system literacy, competing priorities).

Conclusion: Immigrants reported many challenges in accessing and receiving PHC, and these challenges have increased since the onset of the COVID-19 pandemic. This study yielded six recommendations to address those challenges: building trustworthy doctor-patient relationships, effective care coordination, overcoming language/culture differences, addressing health system structure barriers, and enhancing health system literacy.

A1.2 - Towards More Appropriate Care for Low Back Pain: Understanding Primary Care Factors that Increase Best Practices

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Background and Objectives: Low back pain (LBP) management and outcomes have changed little in the past 35 years, with a need to understand the factors that enable or constrain the implementation of best practices by primary care providers managing this condition. Overuse of healthcare resources and continued poor uptake of best practices still exists in this area. The Consolidated Framework for Implementation Research (CFIR) is used to identify barriers and facilitators to the uptake of best practices.

Approach: The study involves a multi-phased, mixed methods approach used to explore and explain the social and practice environments of primary care. First a literature review was conducted to understand what is currently known and this was followed by quantitative survey's to a sample of 240 LBP primary care providers. This was then followed by another phase of qualitative interviews to a subset of 21 providers who completed the survey. A mixed methods explanatory approach was conducted to provide context and explain the most salient CFIR factors for the implementation of best practices, and why they were important.

Results: The literature review included 76 studies, the survey had a response rate of 43.6%, and there was a subset of 21 providers that were interviewed. After synthesizing all results, CFIR was adapted for use in LBP management. Findings suggest that implementation strategies for bringing more best practices into LBP management must consider: 1) high-quality evidence; 2) understanding patient needs; 3) access to knowledge that fits into provider workflows; 4) high self-efficacy; and 5) installing champions and executing plans. Additionally, LBP management implementation efforts need to draw on multiple providers including physiotherapists, chiropractors and nurses, and can use virtual care for integrating best practices. Other findings included that practice patterns may differ along demographic characteristics such as gender, level of experience and geography of practice.

Conclusion: The study addressed a widely acknowledged "know-do" gap in LBP management by providing the most important factors to build implementation efforts around including evidence, patient needs, access to knowledge, self-efficacy and champions and plans. This is relevant to several stakeholders including primary care providers, policy-decision makers and implementation scientists.

A1.3 - Minor Ailments and Pharmacist Management in Ontario: Attachment and Primary Care

Presented by: Lisa Dolovich

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Background and Objectives: Pharmacists are the 4th largest healthcare profession in Canada. Minor ailments (MA) are health conditions managed with minimal prescribed treatment and/or self-care strategies. In Ontario, pharmacists were given authority to deliver service and prescribe for thirteen MAs on January 1, 2023. This study aims to: (1) identify patterns of MA service provision; (2) describe characteristics of service recipients; and (3) observe relationships between service recipients and their attachment to a primary care clinician.

Approach: A cross-sectional analysis of linked health administrative data including pharmacist billing for MA services, patient demographics, physician and hospital billing data, and data on enrollment to primary care models was conducted. Descriptive statistics on total and specific MA services delivered in Ontario from January 1 to August 31, 2023 were determined and include volume and type of services provided and demographics (age, sex, income, new arrival status, comorbidity), health care utilization (ED, hospitalization) and primary care attachment (patient enrolment model).

Results: In 2023, 355,116 (2.3%) Ontario residents received at least one MA service. Most services were for urinary tract infections (131,036), conjunctivitis (93,477), herpes labialis (30,710), allergic rhinitis (30,026) and dermatitis (26,675). Compared to overall Ontario residents, MA service recipients were more likely to have higher incomes (highest income quintile, 23.3% vs. 20.3%); higher comorbidities (17.4% vs. 9.6%), and less likely newcomers (8.2% vs. 12.5%). They were more likely attached to a primary care provider (91% vs 84.9%) and more likely enrolled in capitation models of care (35.2% vs. 30.3%). Nine percent (32,031) of MA services were provided to people uncertainly attached to a primary care clinician.

Conclusion: Findings indicate demand for services for people uncertainly attached to a primary care clinician. Long-term residents, those living in high-income neighbourhoods and those with a primary care clinician were early service users. These findings raise consideration about whether the program contributes to the inverse care law.

A1.4 - Building the capacity for an interprofessional primary care workforce

Presented by: Catherine Donnelly

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Background and Objectives: The current crisis in primary care has emphasized the need for team based models of care. For occupational therapists and other professions, interprofessional primary care is relatively new practice setting. Therefore, in order to prepare a primary care workforce targeted training materials are required. The objective was to enhance the capacity of occupational therapists to practice in primary care teams through a suite of resources including online modules, a national practice network and resource repository.

Approach: Multiple methods were employed to create two online asynchronous learning modules. The first of two modules used a consensus methodology with representatives from physiotherapy, social work, speech and language, audiology, and dietitians to identify foundational knowledge on primary care. A pan-Canadian team, supported by the Canadian Association of Occupational Therapists (CAOT) and a community advisory group, developed the second module that aligned with CAOT's "Vision for Occupational Therapy: A Path Forward". An environmental scan was conducted to identify open source materials designed to support team based primary care. A developmental evaluation approach was used to inform an evaluation framework.

Results: Through a collaborative, interprofessional process two comprehensive evidence-based online modules were created. The first, an introduction to primary care, addresses the values and principles of collaborative primary care, models of team-based primary care and includes interprofessional case studies. The second focuses on how to integrate and work in primary care teams using the occupational therapist's unique lens including assessments, interventions and a focus on equity and access. The environmental scan yielded eight online resources, five focused on primary care teams and three targeted occupational therapists in primary care. An evaluation framework was designed to support a full-scale implementation and evaluation of the modules focusing on users experience, knowledge, and behaviour. CAOT is hosting a national practice network with primary care research and practice based resources.

Conclusion: Occupational therapy learners and practitioners will have access to evidence-based online education modules, increasing occupational therapy capacity for working in primary care teams. Full scale implementation is the next needed step to evaluate the impact of targeted education as a strategy to build primary care workforce capacity.

A1.5 - Evaluating the Impact of a Dementia Navigation Program in Primary Care

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Background and Objectives: Dementia care is often fragmented and difficult to navigate. Navigating Dementia NB/ Naviguer la démence NB was a research project that piloted a patient navigation (PN) program in New Brunswick (NB), Canada, for people with dementia (PWD), their care partners, and the care team. This PN program aimed to guide and support patients and their families through health and social care systems, matching client needs to appropriate services and resources.

Approach: Six patient navigators (4 anglophone and 2 francophone) were embedded in preexisting primary care clinics/health centres in urban and rural settings across the province. The role of the patient navigator was to increase participants' knowledge of health and social services/resources related to dementia care, and to improve access to these services/resources. A mixed methods approach was used to evaluate the program, which was piloted for 12 months (July 2022-July 2023). Data for this evaluation was collected from patient navigator charts, client satisfaction surveys, and semi-structured interviews with clients, as well as stakeholders involved in creating and implementing the program.

Results: Across sites, 150 participants (PWD and their care partner) took part in the study. Reasons for contacting the navigators included: connecting with social services, dementia specific information and resources, advance care planning, community resources, and home health care. Post-intervention satisfaction surveys (n = 56) indicated that 84% of respondents were generally satisfied with services from the program. Seventy-five percent of respondents reported having greater knowledge of health and/or social services and resources because of the patient navigator and 74% of respondents reported having greater access to health and/or social services and resources. Post-intervention interviews (n = 36) highlighted improvements in respondents' knowledge of, and access to, appropriate services and resources; the need for emotional support; existing systemic barriers; and recommendations for program improvement.

Conclusion: These results suggest that PN, embedded in primary care clinics/health centers, is beneficial for this population. Patient navigation is a flexible model of care and can be easily adapted to different populations and regions to promote positive experiences with health and social care systems and promote person-centred, integrated care.

A2.1 - Patient partner dis-engagement: When patient partners consider quitting

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Background and Objectives: As the practice of partnering with patients becomes more commonplace across health systems, attention to patient partners' well-being, as team members and colleagues, is warranted. Instances of patient partners quitting their role have been documented for some time, but less is known about the pathways leading to this outcome. In this presentation, we offer a deeper understanding of why patient partners consider quitting their roles, and the implications this has for supporting high-quality engagement.

Approach: Data sources used to understand patient partner experiences and reasons for considering quitting included: (1) an online survey of self-identified patient partners which asked if respondents had considered quitting their role and if so, what prompted this; and, (2) qualitative descriptive interviews with patient partners which further explored these instances and the related circumstances and rationales. Data collection approaches were co-designed with patient partners. Open-ended survey comments were inductively analyzed to describe the reasons that prompted quitting considerations. Interviews were analyzed via conventional content analysis to identify considerations of, incidences, and impacts of quitting.

Results: 40% (213) of survey respondents and 71% (15) of interviewees identified that they had considered quitting their patient partner role. Rationales for considering quitting centred around personal reasons (e.g., health issues, caregiving, finances), demands of the role (e.g., lack of fit, overwhelmed, unrealistic expectations) and challenges of the role (e.g., interpersonal challenges, emotional tolls, poor engagement practices). Many of the reasons provided by interview and survey respondents centred around fatigue, a sense of futility due to a lack of impact, emotional strain, lack of support and role ambiguity, factors that are known to be associated with burnout.

Conclusion: Results from this study suggest that many patient partners suffer from or are at risk of suffering from burnout due to inadequate engagement practices. Organizations that are engaging patient partners in their work should take note of these challenges and develop strategies for mitigating them.

A2.2 - Development of a framework of engagement indicators in health research

Presented by: Linda Nguyen & Sakiko Yamaguchi

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Background and Objectives: Patient-oriented research is increasingly becoming an expected practice where individuals with lived experience partner with researchers throughout the research process. With the increased number of teams embarking on partnerships, an evidence-based framework for indicators of engagement can support the establishment of clear processes and mechanisms for partners' engagement in research. Our study aims to develop a framework of indicators of engagement among different types of partners in research.

Approach: This study employed a framework synthesis approach with a multidisciplinary team with experience in patient-oriented research. First, we conducted a literature review using the search strategy from two published reviews to identify relevant published frameworks, models, and theories about patient engagement in health services research. Articles were included if they provided a framework, model or theory about engagement in health services research and described outcomes of engagement. Data were extracted from 49 included articles and synthesized through iterative discussions to create an initial framework.

Results: Engagement indicators in the initial framework were categorized based on the following values and principles:

1. **Responsibility:** Involvement with project activities such as executing project tasks, being prepared for meetings and project activities, taking leadership roles and sharing innovations to the project;
2. **Respect and reciprocity:** Team dynamics such as contributing to responsive dialogue and communicating with the team, actively participating in the co-learning process, and sharing knowledge with different interest groups; and
3. **Personal and project growth:** Self-reflection and learning such as demonstrating thoughtful consideration of project goals and providing strategies for achieving them, seeking learning opportunities to gain knowledge and skills, and regularly reflects on personal and project progress and seeking ways to improve and optimize processes.

Conclusion: Our next step is to test and validate our initial framework of engagement indicators with data from patient-oriented research networks in Canada. This framework will provide key indicators of engagement that can be used as a guide for patient-oriented research teams in their engagement process.

A2.3 - Evaluating Patient Engagement: Lessons Learned from a Canadian Pediatric Rare Disease Research Network

Presented by: Maureen Smith

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Background and Objectives: With increasing recognition of the importance of patient engagement and partnership in health research comes the need to measure its impacts. INFORM RARE is a Canadian multidisciplinary pediatric rare disease research network with a comprehensive patient engagement strategy, co-designed by patient partner investigators. To inform future improvements, we evaluated the impact of our patient engagement practices to date from the perspectives of patient partners (investigators, adult advisors, youth advisors), non-patient investigators, and research staff.

Approach: Led by a patient partner co-principal investigator (MS), we adapted the Engage with Impact Toolkit framework (McMaster University) and convened separate evaluation committees for adults (patient investigators/advisors, non-patient investigators/staff) and youth (advisors). The adult committee selected evaluation domains from the Toolkit: knowledge and skills; satisfaction; equity and inclusivity; priorities, decisions, and accountability; culture change. Youth advisors selected their own domains: knowledge and skills; preparation and support; youth-researcher partnerships. In a mixed-methods approach, following surveys with network members, we conducted virtual semi-structured one-on-one interviews or focus groups, by participant preference. Interviews/focus groups were recorded, transcribed, and analysed using framework analysis.

Results: Six adult patient investigators/advisors, 14 non-patient investigators/staff, and 5 youth advisors participated in an interview or focus group. Framework analyses revealed that youth and adult patient partners connected their satisfaction with engagement to feeling heard and respected. Adults also described the importance of the team accommodating changes in their availability and capacity to contribute over time. Non-patient investigators/staff described the positive personal impact of hearing patient partner perspectives and examples of patient engagement influencing specific studies. Interviewees identified a need for enhanced communication from the network, particularly about ‘big-picture’ impacts of engagement (patient partners) and patient engagement activities (non-patient investigators). Some interviewees noted the importance of patient co-leadership of the network, and both youth and adult patient partners identified opportunities for additional patient-led engagement.

Conclusion: Our patient engagement evaluation stressed the importance of investing time and resources to co-design an evaluation strategy that measures what is valued by both patient partners and non-patient research team members. Patient partnered research has moved beyond simply measuring satisfaction; understanding additional impacts will inform avenues for improved practice.

A2.4 - Creating inclusive and safe space for engaging with youth with brain-based disabilities: Critical Ethical Engagement with YOUth (CEE YOU)! project in Patient-Oriented Research

Presented by: Sakiko Yamaguchi & Linda Nguyen

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Background and Objectives: Youth with disabilities are increasingly partnering with research teams to share their lived experiences and contribute to research development. To create meaningful youth participation in research, all parties involved should engage in critical thinking together to ascertain roles and processes that create positive engagement experiences. In the Critical, Ethical Engagement with YOUth (CEE YOU)! Project, we aim to co-develop resources to guide partnership development when working with youth with brain-based disabilities in research.

Approach: An integrated Knowledge Translation (iKT) approach is applied to involve two youth with brain-based disabilities as youth co-researchers in all steps of the knowledge co-creation process. Through bi-weekly meetings, we reviewed interview questions, designed a project logo, created a recruitment video, and conducted training on how to interview and code qualitative data. Youth co-researchers conducted semi-structured interviews with youth with brain-based disabilities who have experience in partnering with researchers to gain first-hand accounts of experiences and perspectives on research partnership. We coded and analyzed interview transcripts using Cahill and Dadvand's P7 Youth participation model.

Results: Seven domains (purpose, positioning, perspective, power relations, protection, place, and process) interact with each other, shaping particular relational and psychological spaces for youth with disabilities to be research partners. Researchers' "purpose" for co-creating new knowledge from youth's lived experience and youth's motivation to learn new skills and commitment to generate a positive impact on the community transform research engagement to a specific social "place". In the dynamic "process" of research relationship building, researchers' lack of intended effort to manage existing "power relations" between researchers and youth, and failure to "position" youth as equal research partners can tokenize youth's diverse "perspectives" that intersect with their disability. Researchers' attention to unique needs of youth with disabilities and "protection" of emotional safety for disclosure are essential.

Conclusion: The ethical engagement with youth with disabilities in research requires researchers' continuous self-reflection on their approach to youth's lived experience, their own power, and youth's agency. Our developed resources can compliment to meet the emerging training needs for researchers who will start engaging with youth with disabilities in their research.

A2.5 - Understanding the institutionalization of public engagement in health policy decision-making: A critical interpretive synthesis

Presented by: Rana Saleh

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Background and Objectives: The institutionalization of Public Engagement (PE) can create permanent structures and processes for the public to be systematically engaged in decision-making. Despite the large, multidisciplinary body of literature studying PE institutionalization, we still lack a comprehensive understanding of how it is conceptualized. The objective of this study is to draw on this literature to understand how the institutionalization of PE is defined and conceptualized, and the different forms it can take for health policy.

Approach: A Critical Interpretive Synthesis (CIS) - a type of systematic review that produces typologies and frameworks - was conducted. A systematic search of 7 search engines yielded 2662 articles for screening from which 141 were assessed in full text across an inclusion criterion covering any country, multidisciplinary literature, for governmental and participatory public engagements for health and social policies. 45 studies were finally included with high inter-rater reliability. Data was inductively extracted until theoretical saturation. Emerging themes and concepts were grouped into theoretical constructs; that were in turn critiqued considering the whole literature for a theoretical framework conceptualizing PE institutionalization.

Results: Evidence was extracted from theoretical and empirical literature (published and grey) covering more than 20 countries across disciplines including health policy, political science, and public administration. The theoretical constructs identified were used to build an organizational framework with working definitions to conceptualize the institutionalization of PE for health policy. The framework describes the different levels at which the institutionalization of PE takes place (e.g., legislative and executive branches of the local or national governments), the legal and regulatory frameworks governing it, the structures created for it, and the processes, resources, and capacity building required for its functioning. The culture of engagement was also identified as a key construct. Reported benefits, shortcomings, barriers, and key conditions for the success of institutionalization of PE were also identified.

Conclusion: Findings from this study help clarify what it means to institutionalize PE and the various forms it takes for health policy. The resulting framework could inform efforts to rigorously examine institutionalization efforts. Future work should assess its validity and contextualize it to contexts with different political systems.

A2.6 - Identifying what matters to adults with mobility limitations regarding their experiences with medications: A concept mapping study

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Background and Objectives: Persons with mobility impairments are at high risk of polypharmacy and its associated complications. There are limited assessment tools capturing experiences with medication therapy and none co-designed by persons with mobility impairments. To address this important gap, the objective of this study was to develop potential items for a PREM related to medication use for French and English-speaking adult Canadians with mobility limitations.

Approach: We used a mixed-methods concept mapping approach. Participants were required to be 18 years of age or older, live in the community across Canada, speak and read English or French, have a mobility limitation, and take at least one medication. Participants generated statements in response to the focal prompt: what matters to you about medications in your everyday life? Participants sorted piles of statements based on their conceptual similarity and rated each statement on two dimensions - importance and feasible. In the mapping session, a subgroup of participants created visual maps of the data.

Results: Twenty-two individuals participated in brainstorming, 30 completed sorting, 45 completed rating, and 9 participated in the mapping session; some individuals participated in multiple steps. Participants generated 694 statements which were synthesized into a final list of 80 statements. The final map contained ten clusters that aligned with what mattered to participants about their medications in everyday life: (1) medication-related financial considerations and support; (2) pharmacy-related services and supports; (3) access to medications and medication-related supports; (4) acceptance and stigma around medication use; (5) ability and ease of taking medications; (6) shared decision-making and access to medication-related research and information; (7) medication effectiveness, side effects and risks; (8) knowledge, self-awareness and empowerment; (9) accessibility of healthcare providers; and (10) communication and relationships with healthcare providers.

Conclusion: Measuring and optimizing healthcare experiences are of critical importance to value-based quality care. We identified multiple domains and items related to medication-related experiences for persons with mobility-limitations. Findings will inform the future development of a co-designed PREM in efforts to achieve improved healthcare experiences for Canadian adults who take medications.

A3.1 - Beyond guidelines: Decoding the influence of networks in effective infection prevention and control in Ontario's long-term care homes

Presented by: Kainat Bashir

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Background and Objectives: The Fixing Long-Term Care Act, addressing sector challenges during the COVID-19 pandemic, mandated infection prevention and control (IPAC) programs in Ontario's long-term care (LTC) homes led by designated IPAC leads in April 2022. This study explores how the social networks of these IPAC leads influence COVID-19 IPAC guideline implementation. Emphasis is placed on examining translation competence among those in the role, shedding light on detailed insights into the Act's execution and effectiveness in practice.

Approach: Semi-structured qualitative interviews were conducted with 19 IPAC leads across nine regions in Ontario during which they were asked to visualize their networks. The analysis followed three steps: independently interpreting network maps, analyzing qualitative narratives for subjective meanings of ties, and integrating insights for a comprehensive understanding of social networks. The Consolidated Framework of Implementation Science Research (CFIR) 2.0 guided narrative analysis, with inductive coding capturing additional concepts. An interpretive qualitative approach validated or expanded the CFIR framework based on emergent interview themes. Inductive codes also identified concepts related to networks, individual knowledge translation competency, and organizational knowledge translational capacity.

Results: Network diagrams visualized by the participants during their interviews were classified into five different types and the network diagrams were compared with their corresponding narratives which largely matched their depictions of their networks. This study identified 28 individual translation competencies grouped into six domains: leadership and decision-making, communication and relationship building, learning and development, change management and adaptability, resource management and building confidence and motivation and 14 organizational knowledge translations competencies grouped into four domains: collaboration and accountability, infrastructure and resources, organizational capacity, and organizational culture. Additionally, nineteen themes were identified that either promoted the implementation of the COVID-19 IPAC guidelines or impeded implementation. Findings were incorporated and elaborated across all five domains and seventeen constructs of the CFIR 2.0 framework.

Conclusion: Participant-generated network diagrams and narratives provided insights into translation competencies crucial for effective IPAC in LTC settings. Recognizing facilitators and barriers informs strategies to overcome challenges, enhancing IPAC practices and LTC home resilience during health crises. This understanding may guide tailored strategies for various healthcare settings, especially in crisis situations.

A3.2 - Improving the impact of Health Technology Assessment (HTA) in Canada

Presented by: Craig Mitton

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Background and Objectives: Health technology assessment (HTA) is a tool to assist decision makers in optimizing resource use through generating evidence on both clinical and cost-effectiveness. While production of HTA is pervasive in Canada and decision makers widely acknowledge value in HTA evidence, the impact of HTA on decision making varies considerably. The policy issue at the heart of this project is one of implementation - how can HTAs be better integrated into decision processes in the health system.

Approach: This one-year action-oriented research project employed a variety of methods including qualitative content analysis in reviewing HTA producer organization websites across Canada, a web-based survey of HTA producers, semi-structured qualitative interviews with policy makers and clinical leaders, and, finally, a virtual policy workshop with representation from key stakeholders across Canada. The analysis drew on an array of established conceptual frameworks that drove us to key policy strategies that can be employed by decision makers so that HTAs are most likely to be utilized in decision processes across the health system.

Results: We identified three fundamental issues: First, there is a potential disconnect between HTA production and HTA implementation. We need policy makers and HTA producers aligned to define the parameters together for HTA production and the structure for implementation. Second, those on the 'front line' who are most familiar with given services and technologies may not be in tune with the broader system priorities, so there is a disconnect between the levels of decision making. Third, the nature of HTA questions important to decision makers has been changing with a desire for input on programs rather than devices or individual services. In other words, HTA needs to be fully integrated with the broader actions of resource allocation and other processes in the health system.

Conclusion: Through this work we were able to put forward guidance for both HTA producers and decision makers around what can be done to improve uptake. This work extends other research in the field of KT and provides insight in the use of evidence more broadly.

A3.3 - Methods to support evidence-informed decision-making in public health: Creation and evolution of a rapid review service during COVID-19 pandemic response and recovery

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Background and Objectives: The explosion of research literature that occurred in response to the COVID-19 pandemic resulted in the need for public health decision-makers to access high-quality synthesized evidence for policy and practice decisions. In response, the National Collaborating Centre for Methods and Tools (NCCMT) developed a Rapid Evidence Service (RES). The RES builds upon internationally accepted rapid review methodologies to synthesize the best evidence on priority public health questions for local, regional and national public health decision-makers.

Approach: Our process involves receiving and prioritizing public health decision-makers' questions, collaboratively developing clearly focused questions, developing and conducting a comprehensive search, rapid screening of evidence, critically appraising relevant evidence using validated tools, summarizing key findings, GRADE-ing the evidence, and synthesizing the findings into a final report which includes an executive summary, and dissemination through NCCMT channels. To ensure the needs of those most affected by subsequent decisions are represented, public partners with lived experience are invited to provide their perspectives and lived experiences.

Results: Since May 2020, we have completed 94 rapid reviews on 50 priority public health topics. We continue to update reviews as new evidence emerges through updates and maintaining living rapid reviews. We have answered questions from and worked collaboratively with regional, national, and international organizations. Public partners are identified through a pool of interested individuals and compensated for their time. Their input provided nuance to understanding the review question and meaningful insights into gaps in the existing research and the implications of the findings for policy and practice, and their comments were incorporated into the summary. The RES team continues to actively respond to decision-makers' needs for timely evidence syntheses.

Conclusion: The RES is a real-world example of how synthesized evidence can be mobilized quickly in response to decision-maker needs. Our process has evolved to ensure feasibility, accuracy, and efficiency in response to the COVID-19 pandemic, and we continue to respond to the evidence needs of decision-makers and policymakers nationwide.

A3.4 - Patient Partner Contributions to Knowledge Translation & Exchange in a Primary Care Research Program on Case Management for People with Complex Care Needs

Presented by: Donna Rubenstein

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Background and Objectives: PriCARE is a patient-oriented research program studying case management in primary care for adults with complex care needs. It involves active engagement of anglophone, francophone and First Nations patient partners (PPs) from five Canadian provinces. PPs led or contributed to knowledge translation and exchange (KTE) throughout the program. To share success stories on PP contributions in research, this presentation aims to demonstrate how the involvement of PPs improved research processes and KTE products.

Approach: PPs have been involved in PriCARE from the outset, which dates back to 2018. They have been included as valued members of the research team, thereby maximizing the impact of patient-researcher partnership. PPs contributed to the research proposal and to training for case managers who delivered the intervention. They contributed to and led, or co-led, development of KTE plans and products. In addition to their lived experience, PPs shared personal skills and network connections to enhance KTE in PriCARE. Support and encouragement from researchers were essential aspects of their success.

Results: PPs enhanced research content by integrating patients needs and preferences. For example, the study population was identified as “frequent users of healthcare services” and PPs expressed concern that this description has negative connotations. Team members agreed and language was adjusted.

PPs improved accessibility and relatability of the research. As another example, in the case of a validated questionnaire that could not be changed, the team created guidelines to administer it in a patient-friendly manner. PPs also participated in simulated patient interviews to aid research assistant interview training.

PPs strengthened knowledge mobilization. Many KTE materials and a toolkit for providers have been developed by PPs, including a video, infographics, publications, and presentations. PPs regularly present at conferences and share outputs of the program within their networks.

Conclusion: Having PPs involved in all aspects of the program has led to the development of KTE products and processes that are more relevant and impactful to stakeholders. While PP perspectives, skills and networks have enhanced KTE in PriCARE, support from researchers has been essential to maximize the success of partnerships.

A4.1 - Indigenous Youth with Pediatric Onset Chronic Health Conditions Transitioning from Pediatric to Adult Healthcare: A Qualitative Study on Barriers and Supports

Presented by: Mandi Gray

All Authors: Mandi Gray¹, Rick Lightning², Azure Johnson³, Richard Oster⁴, Barbara Dumigan-Jackson⁵, Maxine Cutarm³, Bonny Graham², Kira Dlusskaya⁵, Alyssa Chappell⁵, Andrew Mackie⁵, Josh Lightning³

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Background and Objectives: The primary objective of this study was to identify the supports and barriers for Indigenous youth with pediatric onset chronic health conditions transitioning from pediatric to adult healthcare services. Transition is often a lengthy process which ideally begins around age 12-13 and continues until the mid-20s. There is a growing body of research on pediatric to adult healthcare transitions for youth, but there is limited information on best practices for supporting Indigenous youth transitions.

Approach: The research was done in full collaboration with a Community Advisory Committee comprised of Indigenous healthcare providers, Elders and knowledge keepers and guided by a Community Based Participatory Research methodology. Community based researchers conducted qualitative interviews (n=47) with youth aged 16-30 with chronic health conditions, caregivers of the youth, and healthcare providers. Three talking circles were held and facilitated by a community member (n=15). Two of the circles were for youth and one for caregivers. The interviews and talking circles were transcribed and coded thematically by two authors. The Community Advisory Committee provided feedback on the interpretation of the findings.

Results: The thematic findings include: 1) systemic health inequalities exacerbate gaps in healthcare; 2) intergenerational trauma impacted youth, creating Indigenous specific barriers to healthcare; 3) long-term relationships with care providers who were knowledgeable about Indigenous culture positively impacted youth; 4) there was a desire among participants for an incorporation of Indigenous worldviews into healthcare service delivery to aid transition; 5) youth often struggled with the new responsibilities they assumed as adults. The participants provided several recommendations for healthcare service delivery for this population, such as improved Indigenous specific supports for transition aged youth based in community and improving education for healthcare practitioners on needs of transition aged youth and Indigenous culture from a strengths-based perspective.

Conclusion: This study demonstrates the complexity of transition experiences faced by Indigenous youth with pediatric onset chronic health conditions. The identified barriers could be addressed through systems level changes and the development of Indigenous specific transition support services. Such approaches need to be Indigenous-led and incorporate Indigenous culture, language, and teachings.

A4.2 - Inuit mental health service utilization in Manitoba: Results from the Qanuinnngitsiarutiksait study

Presented by: Josée Lavoie

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Background and Objectives: The mental health of Canadian Inuit has attracted considerable attention in the literature, even in comparison to other Indigenous peoples. This focus has presumably been in response to the disproportional rates of suicide documented among Canadian Inuit. Many reasons have been offered to explain this situation, including the disastrous history of colonialism that displaced traditional economies, knowledge systems and undermined family and individual self-reliance; and the continuous marginalization of new created Inuit communities

Approach: The objective of the Qanuinnngitsiarutiksait study was to develop detailed profiles of Inuit accessing health and social services in Manitoba, using administrative data routinely collected by Manitoban agencies, to support the development of Inuit-centric services. This article focuses on Inuit utilization of mental health services in Manitoba. It was conducted in partnership with the Manitoba Inuit Association, and Inuit Elders from Nunavut and Manitoba. We focused on two interrelated cohorts: Inuit living in Manitoba, and Inuit from the Kivalliq region who come to Winnipeg to access specialized services.

Results: Our results show that mental health-related consults represent between 1 in 5 to 1 in 3 of all consults made by Inuit in Manitoba. Rates of hospitalization for mental health conditions are considerably lower than those of residents from the Manitoba northern health authority. Given that Nunavut has the highest rate of suicide in the world, our results suggests underserved needs rather than lower needs.

Conclusion: Kivalliq and Manitoba Inuit utilize mental health services in Manitoba extensively, yet these services for the most part remain western-centric. Epistemological accommodations in the provision of mental health services have yet to be implemented. This will be the focus on our work for the next 5 years.

A4.3 - Unveiling Red River Métis Perspectives at the Crossroads of Cannabis Use and Mental Well-being

Presented by: Chantal Perchotte

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Background and Objectives: Following cannabis legalization for recreational use in Canada, there has been an increased focus on research examining both the positive and negative implications of its use. Despite this, a considerable gap exists in understanding cannabis use with a distinction-based perspective and its correlation to mental health outcomes among Red River Métis.

Approach: Utilizing community-based participatory research (CBPR), 91 participants were engaged in focus group discussions to express their perceptions and experiences with cannabis legalization. Socio-demographic data was collected through Zoom polling features and qualitative responses were transcribed and analyzed using Collective Consensual Data Analytic Procedure (CCDAP).

Results: Among the 91 participants, with a mean age of 48.02 years, the majority were female (80%, n=68), while 15% (n=13) were male, and 5% (n=4) identified as non-binary or other. Over half (63.7%) reported having used cannabis. CCDAP analysis revealed 8 overarching themes, encompassing Legalization, Youth, Community, Positives, and Negatives of Cannabis Use, Mental Health Supports, Cannabis Education, and Recommendations and Supports. Positive perceptions of cannabis legalization were prevalent, with many reporting its recreational use as benign. However, notable concerns were raised including limited public information about cannabis effects, its effect on developing brains in youths, and the absence of mental health resources and support for Red River Métis.

Conclusion: There was overall acceptance of cannabis legalization, and validation of its use in pain management, stress, and anxiety reduction among Red River Métis. However, further studies are required to investigate the impact of cannabis usage on mental health in conjunction with culturally relevant support for Red River Métis in Manitoba

A4.4 - A population-based repeated cross-sectional study using administrative health data to examine the impact of the COVID-19 pandemic on mental wellness in citizens of the Métis Nation of Ontario

Presented by: Abigail Simms

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Background and Objectives: The COVID-19 pandemic led to unprecedented levels of mental unwellness and yet there are few reports of Métis-specific mental health and wellness, despite the Métis being one of the three constitutionally recognized Indigenous peoples in what is now Canada. Our study examined changes in patterns of mental and addictions-related (MHA) outpatient health service utilization using population-based data on Métis Nation of Ontario (MNO) citizens before and during the COVID-19 pandemic.

Approach: Administrative health data in Ontario, Canada between 2017 and 2022 was linked with the MNO's Citizenship Registry (2022) under an existing Data Governance and Sharing Agreement. Monthly rates of MHA outpatient visits were compared between the pre-COVID-19 period (March 2017 to February 2020) and post-COVID-19 onset (March 2020 to December 2022), and rate ratios comparing observed and expected rates were derived using Poisson generalized estimating equations. Stratifications by age and sex were examined.

Results: Among 28,400 MNO citizens (50.3% male; 54.3% aged 30 to 64 years; 28.3% living rurally), the monthly rate of MHA outpatient visits was 47.8 per 1000 population pre-COVID-19. During the - COVID-19 pandemic, the observed MHA outpatient visit rates were 13% higher than expected (RR=1.13; 95% CI: 1.02-1.26). MHA outpatient visits were higher in females compared to males and MNO citizens aged 30 to 64 years versus older or younger citizens.

Conclusion: MNO citizens experienced an increase in MHA outpatient visits in the period post-COVID-19 onset that persisted up to at least December 2022. High-quality, contemporary data on the mental health outcomes of Métis people is crucial to inform the allocation of scarce mental health resources.

A4.5 - All My Relations - Describing the process of an Indigenous Advisory Board for informing a healthy food incentive randomized controlled trial of adults with type 2 diabetes

Presented by: [Kienan Williams](#) & [Mosom Rick Lightning](#)

All Authors: *Kienan Williams¹, Patrick Lightning², Jackie Bromely³, Kari Meneen⁴, Yun Lee⁵, Sara Scott⁶, Richard Oster^{1, 5}, Anika Sehgal⁶*

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Background and Objectives: Western knowledge generation approaches (such as RCTs) can be historically incongruent with Indigenous principles of equity, holism and empowerment. The 'FoodRx' RCT in Alberta addresses food insecurity and hyperglycemia among adults with type 2 diabetes (T2D), including a subset of Indigenous participants. An Indigenous Advisory Board was engaged to advise on Indigenous aspects of the study. We sought to define the key principles, practices, and outcomes crucial to the Board's role.

Approach: The Indigenous Advisory Board was self-named Niiksokowaaks (Blackfoot) - Wahkohmakanahk (Cree) - "All My Relations" (AMR), and included Elders, experts of the lived experience of T2D, Indigenous and non-Indigenous service providers and allies. We employed a qualitative process evaluation informed by community-based participatory research. Through purposive recruitment, we conducted semi-structured interviews with AMR members as well as academic members of the FoodRx RCT. AMR meeting notes were also sourced as data. Data was analyzed iteratively using directed content analysis and continuous engagement with the AMR Board, which contributed to a comprehensive understanding of the Board's impact.

Results: Analysis of interviews with nine AMR members and five FoodRx academic researchers, and notes from 15 AMR meetings revealed four key interconnected themes. AMR instilled: 1) 'Culture and Ceremony' which highlighted the significance of Indigenous languages, naming ceremonies, and spiritual practices that fostered inclusivity and connection; 2) a 'Transformative Environment' where AMR was a sacred gathering space that promoted equal contributions, trust amongst members, and cultivated personal growth; 3) 'Indigenous Ways of Knowing' namely the application of wise practices, challenging Western research ideals, and advocating for equity within the RCT design; and 4) the need to 'Become Equitable Partners' in research, which underscored relationship-building with Indigenous partners as foundational, urging acknowledgment of Indigenous knowledge, redistributing decision making power, and increased transparency for more collaborative decision-making.

Conclusion: Embedding Indigenous researchers, Elders, and knowledge systems into Western-based RCTs strengthens methodology approaches and maximizes positive intervention impacts on participants. The themes illustrate the impact of community-driven, culturally-relevant approaches, providing ideas for meaningful collaboration in health services research and policy advancement for Indigenous populations.

A5.1 - Prescription Medication Access Among Migrant Populations in Canada: A Scoping Review

Presented by: Jannath Chhokar

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Background and Objectives: Prescription medication access is essential in healthcare, yet migrant populations in Canada encounter challenges such as language barriers, insufficient insurance coverage, and cultural barriers, leading to disparities. Recognizing these issues is crucial for targeted interventions and improved healthcare equity. This scoping review comprehensively examines existing literature on prescription medication access among migrant populations in Canada. The review addresses knowledge gaps and barriers to access, explicitly targeting medication access and health outcomes for this vulnerable demographic.

Approach: The Joanna Briggs Institute (JBI) scoping review methodology was used in this study to systematically map evidence, which included 18 articles from 1,183 articles identified through searches in databases such as PubMed, SpringerLink, and BMC, along with grey literature. The Social-Ecological Model of Health was employed to facilitate a narrative synthesis of findings on prescription drug access among migrant populations, considering various factors at the individual, interpersonal, organizational, community, and societal levels. This approach explored complex factors affecting migrant populations in Canada, offering insights for comprehensive interventions at multiple levels, vital for overcoming barriers and enhancing healthcare provisions for migrants.

Results: This research delineated five levels within the Social-Ecological Model of Health that impact prescription drug access among migrant populations: individual, interpersonal, organizational, community, and societal levels. Language, cultural and religious beliefs, and health literacy emerged as individual-level barriers. Patient-provider interactions, privacy, and confidentiality contributed to disparities at the interpersonal level. The gatekeeper model in Canada influenced organizational-level barriers. Socioeconomic factors posed challenges at the community level. Disparities in federal and provincial prescription drug coverage, private or employer-provided prescription drug insurance coverage, and the COVID-19 pandemic hindered prescription medication access for migrant populations at the societal level in Canada. Interconnected disparities were evident across each level of these barriers.

Conclusion: Effective resolution of prescription medication access barriers for Canadian migrants demands nuanced interventions, as highlighted by the Social-Ecological Model. Identifying barriers across multiple levels underscores the necessity for tailored strategies, emphasizing the urgency of comprehensive approaches to address the diverse healthcare needs of migrant communities and achieve equitable outcomes.

A5.2 - Unveiling disparities: A critical review of the Levesque framework to identify conceptual gaps in healthcare access equity for individuals with lived/living experience of disability

Presented by: Ellie Gooderham

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Background and Objectives: Disabled people experience inequitable healthcare access and discrimination resulting in more un-met healthcare needs and poorer outcomes relative to non-disabled people. The Levesque framework is commonly used as a patient-centered framework that conceptualises healthcare access, yet it is critiqued for incompletely addressing access needs for disabled populations. We explored how the framework and health services research articles that rely on it, consider equitable healthcare access for disabled people, using the lens of critical disability theory.

Approach: We conducted a critical review of articles that engaged with the Levesque framework and focused on disabled people. We also explored the ways critical disability theory has been used in health service research. We extracted data on study type, methodology, disability type, health service location and type, implementation of the Levesque framework, which framework dimensions were discussed, the type of disability theory considered, and engagement with critical disability theory. We applied a critical disability theory lens to interpret results because of the value placed on expertise of people with lived/living experience and considerations of intersectionality, structural violence, and ableism/discrimination.

Results: We identified 1186 articles that cited Levesque's original 2013 paper on Web of Science and 2579 on Google Scholar. 408 potentially relevant articles were screened and we extracted data from 26. Our review identified major gaps in health service access, which were categorised in two themes, barriers that are disability-dependant (e.g. healthcare providers dismissal of lived/living expertise) or shared amongst other marginalised groups (e.g. affordability). Secondly, our review identified some shortcomings of the Levesque framework aligned with previous critiques. The application of critical disability theory showed how the framework fails to define/operationalise or conflates key terms including accommodation, accessibility, access, and ability. Critical disability theory provides crucial insight into how the framework could be improved.

Conclusion: The Levesque framework does not sufficiently describe access and access barriers for disabled people. Health service access must be conceptualised in consultation with those experiencing access barriers. Critical disability theory provides avenues for improving health service access research that leads to equitable policy and health service delivery.

A5.3 - Supporting equitable access to health and social services for people experiencing homelessness in Ontario: a rapid review

Presented by: Monika Roerig

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Background and Objectives: People experiencing homelessness (PEH), including those who are vulnerably housed, often face challenges accessing health and social supports due to stigma and exclusion. This rapid review highlights promising interventions to increase access to health and social services for PEH in Ontario. We synthesize the evidence about these interventions that seek to promote access to health and social services for homeless populations in Ontario, with attention to enablers and barriers to collaborative cross-sectoral approaches.

Approach: We conducted a rapid literature review and consulted with local experts, including clinical and administrative leads of relevant organizations, to uncover and explore enablers and barriers to supporting access to health and social services for PEH across Ontario. We searched three academic databases and conducted broad and targeted website searches to identify interventions within three entry points² 1) urgent self-referral; 2) non-urgent /primary health and social needs; and 3) social services. We collated information on program features, funding, and partnerships, along with evidence of impacts on health, and access to health and/or social services for PEH.

Results: Our review uncovered a diversity of initiatives, mostly in non-urgent/primary health care and social services entry points, with few programs in the urgent self-referral (e.g., through hospitals) entry point. Most of the initiatives involve formal partnerships with one or more organizations (most including a combination of both health and housing/social sector organizations), and impacts health and emergency department diversion by providing low-barrier care where people are, involving interdisciplinary teams, with trauma-informed and harm reduction philosophy, and offering harm reduction services. Cross-cutting challenges were faced with funding. Experts described a general lack of core, operational and sustainable funding resulting in program insecurity and difficulties in longer-term program and organizational planning, diverting funds within organizations to keep critical programs operational, and challenges with hiring and staff retention.

Conclusion: Multiple promising initiatives help fill a gap in health and social supports for PEH. The COVID-19 pandemic increased temporary funding and political support for investment in these programs, but long-term supportive housing alongside sustained investment and rigorous evaluation of low-barrier, culturally safe primary and social care programs are urgently needed.

A5.4 - Beyond the Binary: A scoping review investigating gender diversity in cancer research

Presented by: Morgan Stirling

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Background and Objectives: Trans and gender diverse people (TGD) experience inequities across the cancer continuum. Cissexism, a unique form of oppression TGD people experience, is driving these inequities. Cissexism manifests in many ways including lack of appropriate or inclusive care. It is also linked to the lack of TGD inclusive measures in data, effectively limiting our understanding of their cancer experiences and outcomes. High-quality knowledge syntheses are needed for improving capacity to deliver equitable cancer care to TGD.

Approach: This mixed methods scoping review responds to the question of how cancer affects TGD. We followed the approach outlined by the Joanna Briggs Institute. A search of multiple databases yielded 6,086 titles after de-duplication. Two reviewers independently screened titles and abstracts and identified 511 citations for full text review and 55 were included for data extraction. We extracted data on cancer type and phase of cancer continuum, gender definition used, study design, results, and if TGD were engaged. We followed the meta-aggregation approach by qualitzing quantitative data through narrative interpretation and then pooled with qualitative data to integrate extracted data.

Results: Fifty-five percent of studies reported on cancer screening, most of which focused on sex-based screening cancers (i.e. breast, cervical, prostate). Few studies investigated cancer outcomes or experiences during the diagnosis as well as the survival and survivorship phases. A majority of studies were published in 2017 and after. Sixty-seven percent of studies were conducted in the United States. Most studies acknowledged there is a spectrum of gender identities and expressions among TGD people. There was significant variation in terminology used to describe TGD people included in the studies. We observed a lack of breadth in data used among included studies, limiting generalizability of results to broader TGD community. Eleven percent of included studies reported engaging TGD people.

Conclusion: We observed significant gaps in the body of research on TGD and cancer. The review highlighted there are numerous limitations with the data used in this area. Efforts must be directed to improving the evidence base to address gaps TGD people face in the cancer system.

A5.5 - A scoping review of dental care for survivors of gender-based violence

Presented by: Danielle Toccalino

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Background and Objectives: Gender-based violence (GBV) is a significant public health concern affecting one in three women globally. Injury to the head, face, and neck, including broken teeth and jaws, is common among GBV survivors as is dental neglect, indicating a role for dental care. The aim of this scoping review was to systematically search the available literature to address the research question: What is known in the literature about dental care for survivors of GBV?

Approach: A search strategy including dental care and GBV-related text words and subject headings was developed and run across seven databases (Medline, Embase, PsycInfo, CINAHL, Web of Science, Scopus, and EconLit). Searches were not limited by date, location, or language. Two reviewers independently assessed records for inclusion in the review based on the following inclusion criteria (1) Describe or evaluate provision of, need for, or outcomes of dental care or oral health care; AND (2) Focus on survivors of GBV over the age of 18. Relevant data were extracted from articles meeting inclusion criteria and narrative synthesis used to analyze findings.

Results: Database searches returned 1079 unique records and 72 articles were included in the final review. Included articles were predominantly published in the United States (43%) and focused on dental care providers' knowledge, perceptions, and actions related to GBV (58%) or GBV survivors' need for or experiences with dental care (36%). Only 4 identified articles looked at dental care interventions for GBV survivors. Overall, the literature supported a need for dental care among GBV survivors, with high rates of maxillofacial injury and lower overall oral health among survivors. Findings also support a tailored approach to supporting survivors, with high levels of dental fear common among this group. Dental professionals were, generally, underprepared to support GBV survivors, but training interventions proved effective in increasing knowledge and competency.

Conclusion: GBV can have profound impacts on oral health of survivors. Trauma-informed dental care, integration of dental care into settings that already support survivors, and broader awareness of GBV among dental care providers is needed to better support the oral health of GBV survivors.

A5.6 - Mental illness prior to pregnancy in a population with traumatic brain injury: A cross-sectional study

Presented by: Hilary Brown

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Background and Objectives: Existing studies, in mostly male samples, show an association between traumatic brain injury (TBI) and mental illness. Yet, despite the importance of the preconception period for future perinatal outcomes, there are no data on the prevalence of mental illness before pregnancy in females with TBI. We examined the prevalence of mental illness ≤ 2 years before pregnancy in a population with TBI, and in subgroups defined by sociodemographic, health, and injury-related characteristics, versus those without TBI.

Approach: We completed a population-based cross-sectional study using health administrative data from ICES in Ontario, Canada. Included were females aged 15-49 years with an obstetrical delivery between 2012 and 2020. Modified Poisson regression generated adjusted prevalence ratios (aPR) of active mental illness ≤ 2 years before pregnancy in 15,585 females with a history of TBI versus 846,686 without a history of TBI. We then used latent class analysis to identify subgroups with TBI according to their sociodemographic, health, and injury-related characteristics and subsequently compared them to females without TBI on their prevalence of active mental illness ≤ 2 years before pregnancy.

Results: Females with TBI had a higher prevalence of active mental illness ≤ 2 years before pregnancy than those without TBI (44.1% vs. 25.9%; aPR 1.46, 95% CI 1.43-1.49). There were 3 TBI subgroups: females who were mostly low-income, had a high rate of assault, with their most recent TBI described as intentional and due to being struck by/against (Class 1, 8.3%); females who were mostly young and primiparous, with their most recent TBI described as being unintentional (Class 2, 49.4%); and mid-aged females who were multiparous, higher income, with stable chronic conditions, and with their most recent TBI described as being unintentional (Class 3; 42.3%). Class 1 had the highest outcome prevalence compared to females without TBI (45.0% vs. 25.9%; PR 2.21, 95% CI 2.10-2.32).

Conclusion: Females with TBI have a high prevalence of mental illness before pregnancy. They may benefit from mental health screening and support in the post-injury, preconception, and perinatal periods. Such efforts will require healthcare providers with specialized knowledge at the intersection of TBI, trauma, and mental health, and collaborative care approaches.

A6.1 - Fuzzy Matching, a Promising Record linkage Method for Population Health Data

Presented by: Mahmoud Azimae

All Authors: *Charlotte Ma¹, Nan Wang¹, Mahmoud Azimae¹, Gangamma Kalappa¹, Winnie Shen¹*

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Background and Objectives: Record Linkage is an essential data integration step for any population health data analysis. In the absence of provincial health card numbers, either in data related to social determinant of health or when data quality of collected health insurance number is low. While the probabilistic record linkage (PRL) is scientifically the most robust approach for record linkage, it heavily relies on manual intervention which makes it very time and resource intensive.

Approach: ICES initiated a thorough evaluation and comparison of three software and two methods of Record Linkage. A large Ontario data on about 12 million individuals with direct personal identifiers including valid Ontario health card numbers was selected for this experiment. The availability of the gold standard (Ontario health card number) allowed assessing the accuracy of different approaches. The size of the data provided enough flexibility to repeat the experiments on different subsets. Analysts were blinded to the correct health card numbers. When manual intervention was required, the process was replicated by two analysts to capture human error.

Results: Software utilizing PRL, required the most personnel time to complete the record linkage process. The manual intervention for gray area introduced human error and results were based on subjective decisions. Fuzzy Matching approach was able to eliminate the gray area resolution, achieving similar record linkage rate while maintaining the accuracy. The software costs were higher; however, the advantages were improving the data timeliness, saving on clerical review, and preventing human error. The implementation of new approach at the organization level required full scope of a change management.

Conclusion: The Modernization of Record Linkage (MORL) project at ICES successfully demonstrated advantages of Fuzzy Matching Record Linkage over traditional PRL method to eliminate lengthy and expensive manual review for gray area while achieving the same record linkage rate and accuracy.

A6.2 - Patient, provider, and administrator perspectives of routine collection of sociodemographic data in hospital electronic health records: A Qualitative Study

Presented by: Rudra Dahal

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Background and Objectives: Socio-demographic factors such as gender, education, employment status, and income are known to have significant effects on health outcomes. Despite the importance, current data sources in health records do not contain comprehensive patient-level socio-demographic data in Alberta. We conducted a qualitative study to explore the perspectives of decision-makers, healthcare providers, and patients regarding the acceptability, feasibility, and optimal processes for the routine collection of structured socio-demographic data in electronic health records (EHR) in Alberta.

Approach: We conducted semi-structured interviews with decision-makers, healthcare providers, and patients. Participants were recruited through key informants within Alberta Health Services and Alberta Strategy for Patient Oriented Research Support for People and Patient-Oriented Research and Trials Unit and through patient partners. Informed consent was obtained from all participants. The audio-taped interviews were transcribed and reviewed for accuracy. Using these codes, the investigators developed themes that explored the rationale for, acceptability of, and desired processes for the routine collection of socio-demographic data in electronic health records. We followed the inductive thematic analysis approach. All qualitative data were analyzed using NVivo 12 Plus.

Results: In our study, 23 interviews were conducted involving four decision-makers, nine providers, and ten patients. Policymakers highlighted the need for existing data in comprehending variations and outcomes. Service providers emphasized the importance of sociodemographic data at a population level for evaluating program reach, uptake, and appropriateness and for individual patient care. Patients found routine sociodemographic data collection is acceptable, mainly when provided with a rationale. However, most physicians were uncomfortable asking such questions as part of clinical care, deeming non-clinical inquiries "intrusive" and "sensitive." Barriers included the lack of a systematic approach and processes, time constraints due to high patient volumes, and uncertainty among healthcare providers regarding the next steps if social vulnerability is identified

Conclusion: While it is crucial to possess thorough patient-level sociodemographic data in health records, persistent systemic and healthcare provider barriers lead to inconsistent collection. Establishing standardized processes for routine sociodemographic information collection in Electronic Health Records (EHR) is essential, considering diverse stakeholder perspectives on the ideal time, place, and personnel involved

A6.3 - OECD Patient-Reported Indicators Survey (PaRIS) in Canada: Results From the National Study

Presented by: Marie-Eve Poitras

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Background and Objectives: The Organization for Economic Co-operation and Development (OECD) provides international standards for reporting on health system performance. The collection of patient-reported experiences and outcomes is increasingly integrated into acute care, but less so in primary care, where most healthcare services are provided. Our objective was to examine patient-reported health outcomes and experiences of patients with chronic conditions treated in primary care across Canada and identify improvement opportunities.

Approach: The PaRIS-Survey in Canada was a two-phase cross-sectional study (pilot and main study) within primary care practices. Family physicians and nurse practitioners who have a patient panel were included. Patients aged 45 years or older with at least one registered contact with a participating primary care provider during the six months before their recruitment were invited to participate. The patient questionnaire consisted of 121 items organized around domains related to health, experiences of healthcare services, and sociodemographic characteristics. Another questionnaire characterized practices (34 items). Both questionnaires were developed based on the PaRIS-OECD survey's framework and approved by the Working Party-PaRIS.

Results: This study included 10 provinces, of which 7 collected data and were included in the analysis. A total of 4630 patients and 65 providers participated in Canada. Across provinces, the mean response rate for the provider survey was 11%, and the patient survey was 15%. The mean completion time for providers was 21 minutes, and 35 minutes for patients. Around 14% of patients reported Poor or Fair mental health, and 18% reported Poor or Fair physical health; 30% reported having pain that interferes with their day-to-day activities; 70% reported that they are not involved as they want to be in decisions about their care; and 69% said they feel they are not considered a “whole person” rather than just a disease.

Conclusion: Results from this unique Canadian study will provide new standardized patient-reported indicators used across 20 countries. These measures will allow patients' voices and views to be integrated into the co-created outcomes and experience indicators. Results will enable learning to improve primary care services for people with chronic conditions.

A6.4 - Measurement systems including PROMs and PREMs to support value-based healthcare decision-making: an environmental scan.

Presented by: Pierre-Henri Roux-Levy

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Background and Objectives: Value-based healthcare implementation is seen as a priority in many healthcare systems worldwide. The overarching goal is to have the best health outcomes that matter to patients at the best cost. Patient-reported outcomes measures (PROMs) and patient-reported experience measures (PREMs) are increasingly used to capture the patient's perspective on their health and their experience of care. We aimed to describe the measurement systems, including PROMs and PREMs, used to support value-based healthcare decision-making.

Approach: We conducted an environmental scan of international measurement systems that integrate the PROMs and PREMs in decision-making by national or regional governmental organizations. This scan was composed with a scoping review guided by Joanna Briggs Institute and interviews with key informers. Data from both sources were analyzed through deductive thematic analysis, using two conceptual frameworks and inductive analysis, conducted by two independent researchers. Themes found in both data sources were merged, synthesized, and used to develop the main core basis of such measurement systems.

Results: Twelve papers were retained from the scoping review. Six interviews with eight key informers from six different countries were conducted. We observed that implementing such systems in line with value-based healthcare brings a disruption of current thinking patterns in data collection and manipulation. Before implementation, data governance and regulation must adapt to national and regional contexts. Segments of a population of interest were targeted instead of specific health service sectors. During implementation, patient representatives must be included from the start to support everyone's involvement in data collection. Finally, in partnership with the research communities, utilization support and a structured evaluation process are essential for sustainability. These systems have already enabled practical changes, which could benefit healthcare systems' benchmarking, performance and quality improvement.

Conclusion: Patient-reported measures are essential data in a value-based healthcare system. Integration of them within measurement systems is innovative but still maturing at different levels. These results will enable countries to learn from others' approaches to improve the development and implementation of similar initiatives to support value-based healthcare decision-making.

A6.5 - A Qualitative Study on Patient Survivors' Experiences of Intimate Partner Violence Disclosure in Trauma Care Settings

Presented by: Sarah Demedeiros & Stephanie Montesanti

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Background and Objectives: Intimate partner violence (IPV) is the leading cause of serious injury and the second leading cause of death among reproductive age women in Canada. Trauma care settings lack comprehensive guidelines for identifying and addressing IPV, highlighting a critical gap. Health care providers' discomfort and limited resources exacerbate the problem. The objective of this study was to explore IPV patient survivors' experiences with disclosure in hospital trauma service, to inform implementation of effective IPV screening programs.

Approach: Employing a qualitative study design, this research investigated the experiences of IPV patient survivors disclosing to healthcare providers in an acute trauma service in Edmonton, Alberta. Recruitment spanned various settings including community centers, family services, and University campuses. A purposeful sampling approach ensured a comprehensive representation of participant experiences, encompassing different genders and racial backgrounds. Data collection involved semi-structured, in-depth interviews which explored experiences of IPV disclosure to healthcare providers, barriers experienced when disclosing violence, forms of support received, and recommendations for IPV screening practices, safety and trauma-informed support in hospital settings. Thematic analysis was employed to understand survivors' narratives

Results: The study underscores the critical role of healthcare providers in shaping survivors' experiences of disclosing IPV. Positive encounters were characterized by providers who demonstrated empathy, concern, and a non-judgmental attitude, fostering a safe environment for survivors to share their experiences. Participants stressed the importance of providers taking time, showing compassion, and encouraging open communication. Facilitators of disclosure included the establishment of trust, positive relationships, and words of affirmation from healthcare providers. Negative encounters involved dismissive or insensitive behavior, leading to a lack of trust, avoidance of healthcare, and fear of repercussions. Findings highlight the need for improved training to enhance providers' responsiveness to IPV disclosures. The absence of culturally-safe and trauma-informed care for Indigenous survivors revealed systemic challenges, emphasizing the need to reform healthcare practices.

Conclusion: IPV screening in trauma service can improve provider experience by implementing a local solution that increases competence, and improve patient experience by increasing IPV disclosure rates and access to resources. The findings will inform the development of an IPV screening program for trauma inpatients, preventing further harm from IPV.

A6.6 - Tracking Rates of Timely Diagnostic Evaluation Following Positive Stool-based Tests for Colorectal Cancer Screening using the Electronic Health Record: Measurement Approach and Preliminary Rates from a Pilot Health System

Presented by: Ania Syrowatka

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Background and Objectives: Diagnostic evaluation following positive cancer screening tests is critical in the diagnostic process; however, many patients do not receive necessary follow-up testing, placing them at risk of delayed diagnosis, more aggressive anti-cancer treatments, and lower survival. The objective was to develop an electronic clinical quality measure (eCQM) to report rates of timely diagnostic evaluation following positive stool-based tests for colorectal cancer screening using routinely collected electronic health record (EHR) data, and to pilot the eCQM.

Approach: An environmental scan was conducted to develop the eCQM specifications, including a review of the literature (source: PubMed 2010-2022), North American guidelines for colorectal cancer screening in average-risk populations (source: UpToDate), and related clinical quality measures from key organizations with strong interest in quality and safety metrics. A Technical Expert Panel (TEP) provided clinical and technical guidance and approved the specifications. Measure logic was applied to calculate the eCQM rate at three sites of a health system in Boston, Massachusetts using routinely collected EHR data (study period: 2016-2023). Reliability and validity of both the data and measurement approach were evaluated.

Results: Based on the environmental scan and TEP consultations, the eCQM reports on the percentage of patients who received timely diagnostic evaluation (i.e., colonoscopy, flexible sigmoidoscopy, or computed tomography [CT] colonography) within 180 days of their first positive stool-based test result documented in the EHR. Specifications were defined using standard terminologies (ICD and CPT codes) to facilitate portability between EHR systems allowing for direct comparisons of health systems. At the pilot health system, the overall eCQM rate was 64% across all years and sites. The eCQM rates varied by site (range: 61-74%) demonstrating opportunities for improvement, and by year (range: 59-70%) related to access and capacity changes due to COVID-19. The data and measurement approach had high reliability and validity resulting in accurate and comparable rates.

Conclusion: Most health systems do not have access to reliable and current information on rates of timely diagnostic evaluation after positive stool-based tests for colorectal cancer screening. This eCQM can help healthcare systems measure and report on these rates to facilitate quality improvement in near-real time and track progress over time.

A7.1 - Identifying health human resource planning models for regional integrated care models: A scoping review

Presented by: Joan Almost

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Background and Objectives: Health human resource (HHR) planning is essential to supporting population health and ensuring equitable access to healthcare services. To address population health needs, HHR planning must align with today's integrated care models. However, HHR planning is invariably done on a profession-specific and sector-specific basis, removed from population health needs. Therefore, this scoping review examined HHR planning frameworks to map the models used and their characteristics for use in an integrated care model.

Approach: A scoping review was conducted using the methodological framework developed by Arksey and O'Malley (2005). In collaboration with knowledge users, an overall research question with three subcomponents was developed. A literature search was conducted using selected electronic databases from 2012 to March 2023. Inclusion criteria were primary studies which described and/or implemented an HHR planning or forecasting framework in the English language. Team members independently screened abstracts and relevant studies were retrieved in full text. A data-charting form was developed to chart data according to key components. Data was analyzed using a descriptive and thematic analysis.

Results: The systematic search identified 113 publications that met the inclusion criteria. Fifteen percent of publications were from Canadian settings and 85% were from international settings with Asia and Europe being the most frequent. Forty-five percent of publications discussed a framework for a single profession with physicians being the most frequent (57%). Fifty-five percent of publications discussed a framework which included multiple professions. Five main types of frameworks were identified (needs, supply, demand, competency and scenario-based) with the majority combining supply and demand (41%) or supply and needs (26%). The needs-based frameworks aligned best with the principles of integrated care models as they identify a population's need for health service, expected future needs, and provider requirements for multiple professions based on best practices.

Conclusion: This scoping review synthesized the HHR frameworks presented in publications over the past decade. Integrating the findings with the principles of integrated care models facilitated the identification of an HHR planning framework that focuses on supporting integrated, multi-professional, needs-based workforce planning in a Canadian context.

A7.2 - The Transformative Power of Digital Technology on Health Care Human Resources: Benefits of Clinician Interoperability and Patient Access to their Own Information

Presented by: [Waldo Beausejour](#)

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Background and Objectives: This study assesses the impact of digital technology on health human resources resulting from clinician interoperability and patient access to their own health information. It illustrates current and potential benefits of a connected care system with a focus health system capacity. Interoperability has significantly improved data sharing and communication between different healthcare entities, reducing administrative burdens on healthcare professionals. This has allowed them to allocate more time to direct patient care and complex clinical tasks.

Approach: Canada Health Infoway conducted a comprehensive literature review and in-depth analysis of published literature along with current health system utilization data to describe the current state of clinician interoperability and the ability of patients to access their own health information within each province and territory. We synthesized the key findings related to interoperability and patient access and modeled them to discern the implications for health care human resources. Our approach also included consultations with healthcare experts and practitioners to validate and contextualize the findings.

Results: The digital transformation in healthcare, driven by interoperability and patient access, has the potential to increase workforce capacity. A fully interoperable health system could unlock an estimated 5.7 million hours of clinician time currently lost to inefficient communication and information gaps.

Patient access to health information has empowered individuals to take an active role in their health care, which in turn has influenced health professionals' roles. Already, access to provincial health portals, available in several provinces across Canada, has resulted in an estimated 400,000 hours of health care workforce time saved—approximately 190 full time equivalents (FTEs). Broad access for patients to their comprehensive patient record could result in 2.3 million hours of health care workforce time saved—the equivalent of 1,180 FTEs.

Conclusion: Digital transformation, as evidenced by interoperability and patient access, is reshaping health care human resources. Health care professionals are shifting from traditional roles to more patient-centric, collaborative, and technologically integrated positions. This evolution requires careful planning, training, and support from health care organizations and policymakers in order to yield benefits.

A7.3 - Understanding the training, mentorship, and professional development priorities of Embedded Early Career Researchers (ECRs)

Presented by: Otuto Amarauche Chukwu

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Background and Objectives: Health systems are striving to utilize a Learning Health Systems approach, integrating embedded researchers for timely, relevant evidence production to advance organizational priorities. Recently, training programs have emerged to develop embedded research scholarship and capacity within health system organizations, though primarily focused on trainees. This study explores training needs of embedded ECRs and potential challenges they may encounter to inform development/modification of programs designed to build embedded ECR scholarship and capacity within health systems.

Approach: This study used a qualitative approach to garner insights from embedded and applied scholars (at early, mid, and senior career stage) in Canada, including alumni of embedded research programs (e.g., CIHR's Health System Impact and Embedded Clinician Researcher Programs, Ontario Health Teams Impact Fellows program), and health system leaders that champion and support embedded research within their organizations. Focus group discussions, key informant interviews, and an online survey were used, guided by a discussion guide developed from a literature review and the Enriched Core Competency Framework for Health Services and Policy Research. Thematic analysis was used to analyze the data.

Results: Twenty-six individuals participated in the study. Four key themes were identified: key competencies and skills; training and capacity development needs; training delivery approaches; and enablers and challenges faced by embedded ECRs. Results highlight the importance of supporting ECRs to develop their leadership and organizational management capabilities; their knowledge of and ability to use research approaches that are well-suited to real-world, complex, dynamic environments; and opportunities for collaborative learning and mentorship. Results underscore the perceived importance of context, including being embedded in a supportive environment that values research and evidence and of academic incentives that recognize and value real-world research impact. Challenges such as responding to shifting organizational and system priorities, misaligned health system and academic priorities, and incentives for career progression and impact were identified.

Conclusion: The multifaceted training and support required by embedded ECRs alongside the challenges they face were identified. Designing new training programs/tailoring existing ones to address their needs may enhance their capabilities for embedded scholarship, their ability to co-design with system partners and their impact as leaders of evidence-informed health system improvement.

A7.4 - Changes in Practice Patterns of Family Physicians in Canada

Presented by: Gregory Feng

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Background and Objectives: Access to primary care remains a challenge for many people living in Canada. Declines in family medicine residency applicants and other systems-level challenges have been cited. However, changes in the activities of family physicians also reveal insights on this issue. The objective of this analysis was to identify trends in the practice patterns of family physicians in Canada. The demographics of those focused on providing services outside of family medicine were also described.

Approach: Billing data from the CIHI National Physician Database (NPDB) was used. The payment profiles of 33 medical specialties were characterized using geometric clustering. The payment profiles of active family physicians practicing in Canada (excluding Quebec, Northwest Territories, and Nunavut) from 2013-2021 were then compared against each specialty and ranked by proximity. Results were summarized using descriptive statistics. Univariate linear regression was used to assess trends over time, and p-values were interpreted at the 1% significance level.

Results: In 2021, 28.3% (n=9,506) of family physicians in Canada were found to have a billing profile that resembles a specialty other than family medicine. The proportion of family physicians providing services outside of primary care has increased since 2013 (p=0.005). In 2021, the most common billing profiles of family physicians (other than family medicine) were emergency medicine (14.2%), psychiatry (4.7%), and general surgery (2.1%). Since 2013, the general surgery profile has grown in popularity, alongside steady increases in psychiatry and emergency medicine. The cohort of family physicians focused on providing services outside of primary care has become younger, more female, and continues to remain concentrated in urban areas over time.

Conclusion: The proportion of family physicians focused on providing services outside of primary care is increasing. While emergency medicine and psychiatry profiles have remained popular among family physicians, other specialties such as general surgery have grown in recent years. Further examination of trends at a more granular level is warranted.

A7.5 - Sociodemographic Characteristics and Labour Market Outcomes of Internationally Educated Health Care Professionals in Canada

Presented by: Kristyn Frank

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Background and Objectives: Internationally educated health care professionals (IEHPs) play an important role in Canada's health workforce. IEHPs are now in demand globally and considered critical for addressing Canada's increasing health care needs. Labour shortages in health care professions have been a concern across many Canadian jurisdictions and have intensified during the COVID-19 pandemic. This study provides new information on the sociodemographic characteristics and labour market outcomes of IEHPs in Canada, addressing several information gaps on this population.

Approach: This study uses 2021 Canadian Census of Population data, which is based on a 25% sample of Canadian households. The Census provides key information such as immigration class, age and year of immigration, educational attainment, field of study, and the location of post-secondary study. Since this study largely focuses on the labour market outcomes of IEHPs, the sample was restricted to individuals aged 18 to 64. Descriptive statistics were used to examine the characteristics of IEHPs. Multivariate regression models were used to examine labour market outcomes such as earnings and employment in a health occupation.

Results: One-third (33.0%) of IEHPs had studied nursing and 15.2% reported studying medicine. The majority of IEHPs received their education in Asia, while just over 1 in 10 studied in an English-speaking Western country. Nearly one-third of IEHPs had recently arrived in Canada (2016-2021) and most entered Canada under the Federal Skilled Worker or provincial programs. Overall, 76% of IEHPs in Canada were employed in 2021 and nearly 6 in 10 worked in health occupations. The labour outcomes of IEHPs varied by field of study. For example, the highest proportions of IEHPs who were working in health occupations had studied nursing (69%) or medicine (67%). IEHPs who studied medicine had the highest average annual earnings (\$89,800), followed by those who studied pharmacy (\$64,300).

Conclusion: IEHPs are a diverse population with variations in their fields of study, educational attainment, and official language proficiency. These characteristics were also associated with differing labour outcomes. Results from this study can inform policymakers about which groups of IEHPs may experience greater barriers to entering health occupations in Canada.

A8.1 - Integrating sexual and reproductive health (SRH) into early psychosis intervention: Development of a SRH module for women, transgender, and nonbinary individuals with early psychosis

Presented by: Lucy C Barker

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Background and Objectives: Individuals with psychosis are at risk for adverse sexual and reproductive health (SRH) experiences, and for receiving suboptimal SRH care. Multidisciplinary, structured early psychosis intervention (EPI) programs for youth offer an opportunity to integrate SRH early in the illness course, yet SRH is not part of EPI care currently. The goal of this project was to develop an interactive SRH module for women, transgender, and nonbinary individuals that can be delivered within in EPI care.

Approach: To develop the SRH module for young women, non-binary, and gender-diverse individuals with early psychosis, a working group was formed of diverse Youth Advisors (n=3) and a Youth Engagement Specialist (n=1) with lived experience with early psychosis, SRH experts (n=3), mental health experts (n=3), and research staff (n=1). The working group met approximately biweekly from January 2023 to October 2023 to co-develop a module. The module format was based on the evidence-based structured NAVIGATE EPI program, and considered prior research on SRH and the lived and clinical experiences of working group members.

Results: An interactive module was developed that covered the following topics, mutually decided upon by working group members: (1) relationships, (2) sexual health, (3) reproductive health, (4) sexual orientation and gender identity, and (5) interpersonal violence. For each topic, individual-facing materials (check-in questions, potential topics to discuss with a clinician, worksheets) and clinician-facing materials (goals, handouts, suggested agendas, teaching strategies, tips for common challenges, evaluating gains and therapeutic goals, specific techniques, probes) were developed. SRH and mental health experts brought evidence-based content, and youth brought an affirming and youth-friendly lens to language and content that reevaluated existing clinical and societal norms.

Conclusion: The developed module covers a broad array of SRH topics of importance to youth. If implementation and evaluation are successful, the module could improve SRH-related well-being and outcomes for women, transgender, and non-binary youth with psychosis. Including youth with lived experience as collaborators enhanced inclusivity and relevance.

A8.2 - Palliative and Health Care Experiences for People with Opioid Use Disorder and Advanced Illness: A Multi-setting Qualitative Study

Presented by: Lisa Boucher

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Background and Objectives: Given rising prevalence of opioid use disorder (OUD), there is an urgent need to understand the end-of-life needs and to improve palliative care for people with a history of opioid use. People with OUD face stigma and difficulty accessing palliative care and opioids, which are essential medicines to relieve pain and shortness of breath. We aim to understand the experiences of people with OUD and advanced illness, including access to care and opioid prescribing.

Approach: This study is a multi-phased, mixed-methods project. Phase 1 involved population level studies using administrative data to compare people with and without OUD. Phase 1 informed Phase 2, a qualitative examination in which we are interviewing patients with OUD and/or their caregivers, as well as conducting focus groups with health care providers (e.g., physicians, nurses, social workers, pharmacists, community workers). Patient participants include people who have received or not received formal palliative care for advanced illness, including people living in poverty and experiencing homelessness, and people receiving care across diverse settings (e.g., hospital, hospice, home, shelter) in Ontario.

Results: Preliminary findings indicate that people with OUD and advanced illness face numerous barriers to receipt of palliative care and opioid prescriptions. First, this group faces substantial stigma from traditional health care institutions and difficulty accessing adequate opioid prescriptions to manage their symptoms, thus many avoid seeking care. Second, many experience unstable housing and consider it the greatest barrier to addressing their health needs, along with other basic survival needs. Third, many do not have family/friend caregivers, and rely on community-based providers for much care. Fourth, many seek comfort in spirituality. Health care providers describe complexity in identifying who is close to dying in this community and in prescribing opioids, resiliency among community members, patients feeling undeserving, and needing to spend considerable time advocating for patients.

Conclusion: The study findings demonstrate key challenges in providing palliative care and prescribing opioids for people with OUD, including many social determinants of health and structural vulnerability. This research brings awareness to this marginalized group's advanced illness care needs and suggests that specialized, community-based approaches are required.

A8.3 - Places of care and location of death for individuals with schizophrenia living in long-term care: A retrospective cohort study of Ontario decedents

Presented by: Katherine Dover

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Background and Objectives: Individuals with schizophrenia have complex care needs yet often receive poor-quality care and have poor health outcomes compared to those without schizophrenia. It is unclear if these disparities persist for individuals at the end of life. This study examined differences in places of care in the last year of life and the location of death between those with and without schizophrenia who were residing in long-term care (LTC) one year prior to death.

Approach: We conducted a retrospective, population-based cohort study using administrative health data from ICES. The cohort included all individuals who died in Ontario between January 1, 2010 and December 31, 2019, who were living in LTC one year before death, and who died of natural causes. Schizophrenia was ascertained using a validated administrative algorithm. We used descriptive statistics, negative binomial regression models, and logistic regression models to compare healthcare use, places of care, and places of death for those with and without schizophrenia.

Results: LTC residents with schizophrenia died on average 7 years younger yet were more likely to have no recorded chronic health conditions ($p < 0.0001$). Those with schizophrenia had significantly higher rates of hospitalizations (adjusted rate ratio (aRR)=1.29, 95% confidence interval (CI) 1.25-1.34) and emergency department visits (aRR=1.21, 95% CI 1.18-1.25) in the last year of life (adjusted for age, sex, income, rurality, cause of death, family physician rostering, number of comorbid conditions, and year of death). This trend was consistent for both mental-health related and non-mental health related hospitalizations and emergency department visits. Further, LTC residents with schizophrenia were more likely to die in hospital (25% vs. 16.4%) and less likely to die in LTC (65.5% vs. 74.8%, $p < 0.0001$).

Conclusion: LTC residents with schizophrenia have higher rates of acute care use and are more likely to die in hospital compared to residents without schizophrenia. LTC needs to be prepared to address the complex health needs of this vulnerable group.

A8.4 - Mental health service use and risk of suicide after dementia diagnosis: A population-based retrospective matched cohort study

Presented by: Deena Fremont

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Background and Objectives: Distress following a new dementia diagnosis may have a negative impact on patients' mental health and wellbeing. Little research to date has explored the mental health outcomes of individuals following a dementia diagnosis. In this study, we aimed to compare the incidence of suicide and mental health-related service utilization between older adults with and without a new diagnosis of dementia.

Approach: This matched cohort study assessed all Ontarians aged 65 or older with a new diagnosis of dementia between January 1, 2013, and December 31, 2018. Those free of dementia were compared to those with dementia utilizing a 2:1 age-, sex- and region-match ratio. Dementia diagnoses were identified via a validated dementia algorithm that uses physician claims, hospitalizations, and medication data to identify dementia diagnosis dates. Mental health outcomes being outpatient mental health visits, emergency department visits, and hospitalizations, were assessed within six months of diagnosis date or matched index date.

Results: Our cohort included 504,709 individuals (33.4% with dementia). In the six months after diagnosis/index date, 24.3% of individuals with dementia had 1+ outpatient mental health visit compared to 7.8% in those without dementia. The adjusted rate of outpatient mental health visits was 2.52 times higher (95% confidence interval (CI): 2.50 - 2.55) in those with vs. without dementia. While mental health-related hospitalizations and emergency department visits were relatively rare, the odds of 1+ mental health-related hospitalizations and emergency department visits were 11.83 (95% CI 10.37 - 13.49) and 3.74 (95% CI 3.42 - 4.08) times higher among those with vs. without dementia, respectively. The risks of suicide and self-harm were not different between those with and without dementia.

Conclusion: Our findings suggest that a recent dementia diagnosis is associated with an increased use of mental health services, particularly outpatient services. This information can be utilized to anticipate need and ultimately strengthen outpatient mental health services to support this vulnerable population.

A8.5 - Prescribed Safer Opioid Supply: A Scoping Review of the Evidence

Presented by: Ria Garg

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Background and Objectives: Safer opioid supply programs provide prescription pharmaceutical opioids, often with supportive services, to people at high risk of experiencing harms related to substance use. Despite the potential benefits of safer opioid supply programs, concerns regarding the safety and effectiveness of this practice remain. Therefore, we conducted a scoping review of literature that examined health and quality of life related outcomes among safer opioid supply program clients or the perspectives of clients and their providers.

Approach: We performed a scoping review of peer-reviewed and grey literature studies published between January 1, 2012, to September 12, 2023. We included studies that assessed health/quality of life related outcomes following the provision of prescribed safer opioid supply or explored the perspectives of safer opioid supply clients/providers. We excluded studies that assessed treatments which did not meet our definition of safer opioid supply (e.g., injectable opioid agonist treatment, heroin assisted treatment, pharmaceutical-grade stimulants). Extracted data included study objectives, substance use patterns, client outcomes, client/provider perspectives, and estimates of effectiveness/harm. Lastly, we critically appraised quantitative studies included in our scoping review.

Results: Our search yielded 1,597 articles. Following removal of duplicates and application of our exclusion criteria, 24 publications (17 peer-reviewed and seven grey literature) were included in our review. Three of the seven quantitative studies were good quality, with remaining classified as poor quality. We generated eight themes summarizing topics in the available literature: opioid-related toxicities, infectious complications, other clinical outcomes, client-reported outcomes, program access barriers, diversion, program retention, and costs to the healthcare system. Specific findings included low rates of opioid toxicities, improved physical and mental health, and improved quality of life among clients. Lack of access to adequate opioid doses and the limited range of opioid options offered within safer opioid supply programs were described as an operational challenge and potential reason for diversion.

Conclusion: Generally, evidence suggests safer opioid supply programs result in improved client outcomes. However, important limitations remain, including limited inferences about the effectiveness, safety, and potential for diversion within these programs. Further research is needed to enable program refinement as part of the multifactorial response to escalating rates of substance-related harms.

A9.1 - Understanding the variations in oral health issues and access to dental care among Canadian adults across age groups, household incomes, and self-rated oral health status: a descriptive analysis

Presented by: Annie Sun

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Background and Objectives: Oral health is integral to overall quality of life and physical well-being. Despite the evidence on the cumulative effects of poor oral health, access to dental care remains inequitable among equity-deserving groups. Considering the roll-out of the Canadian Dental Care Plan (CDCP) in 2024, we sought to examine trends in dental health status, prevalence of dental issues, and access to services by age and household income.

Approach: We conducted descriptive analyses using prospective cohort data from the Canadian Longitudinal Study of Aging at baseline (2011-2015) and three-year follow-up (2015-2018). T-tests and chi-squared tests were used to examine differences in access to care and dental issues by age (under and over 65 years), household income (<50k, 50-100k, >100k), oral health status (poor, fair, good, very good, excellent), and changes in oral health status between baseline and at the three-year follow-up.

Results: Our study comprised 44,817 Canadian adults. Respondents with a household income of <\$50k had the lowest self-rated oral status and were more likely to have dental issues, such as dry mouth (25%), tooth decay (20%), and tooth ache (18%), compared to all other income groups ($p < .0001$). Older over 65, low-income (i.e., <50k) adults were least likely to have dental health insurance (69.8% were uninsured), compared to other age and income groups ($p < .0001$). Meanwhile, for participants with a household income of >\$100k, 71.2% of adults under 65 and 50.2% of adults over 65, had private insurance. Persons under 65 years with a lower income experienced the largest increase (11.5%) in oral health issues between baseline and follow-up and had the fewest annual dental visits ($p < .0001$).

Conclusion: Adults over 65 years with low household income reported the worst oral health status, and were more likely not to have dental insurance coverage. This study supports the implementation of the Canadian Dental Care Plan is critical in meeting the urgent needs and improving quality of life for vulnerable populations

A9.2 - Policy supports for integrated care: Lessons from international approaches to collaborative governance for Ontario Health Teams.

Presented by: Stefanie Tan

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Background and Objectives: Ontario has been pursuing a whole systems approach to integration through reorganization into Ontario Health Teams (OHTs) where hospitals, doctors, and allied health providers work as a coordinated team to provide responsive, appropriate, and efficient health services. In this study, we compare and characterize integrated care reforms across three international comparators (England, Germany, and the Netherlands) to identify promising approaches to collaborative governance and their policy implications for integrated care initiatives in Ontario.

Approach: This research is part of a broader project on policy supports for integrated care. We carried out an environmental scan and 12 key informant interviews of integrated care initiatives across three countries: Germany, the Netherlands, and the United Kingdom. Interview data was transcribed and imported into nVivo 14 for analyses. We used the Modes of Network Governance framework (i.e., participant-governed, lead-organization-governed, or network administrative organizations) by Provan and Kenis (2008) to characterize types of collaborative governance across integrated care initiatives. We also carried out an inductive coding strategy to identify the enabling factors and barriers to progress for collaborative governance.

Results: All jurisdictions are pursuing integrated care initiatives through collaborative governance approaches that vary in scale and scope. We find that the comparator jurisdictions use population-level decision-making (Germany), joint decision making at the regional level through Integrated Care Boards (health-specific) and Integrated Care Partnerships (committees for both health and community-based organizations) (England), and voluntary consortia of relevant providers delivering care for chronic conditions or population subgroups (Netherlands). Service-specific innovations, such as the presence of policy entrepreneurs or knowledge brokers, also plays an important role in enabling the policy process for successful implementation. We identify several contributing factors, such as the balance of representatives across the health and community sectors, the use and availability of common standards, and flexibility for local-level adaptations, that enable collaborative governance.

Conclusion: All jurisdictions are pursuing collaborative governance arrangements to enable greater coordination of care to improve care effectiveness and efficiency for patients with chronic conditions or complex co-morbidities. Our results are a starting point for further research about ensuring governance and partnership to support the implementation of integrated care systems.

A9.3 - Does recreational cannabis legalization impact health and health behavior in Canada and the US? A systematic review

Presented by: Tania Sultana Tanwi

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Background and Objectives: Recreational cannabis legalization (RCL) has been adopted across different jurisdictions over the last decade. Evidence suggests that cannabis legalization has diverse impacts on health and health behaviours among population in Canada and the US. Existing reviews are either limited to only a few outcomes or methodologically flawed. The goal of this systematic review is to rigorously synthesize high-quality evidence on the relationship between RCL and downstream health and health behaviors in Canada and the US.

Approach: We searched for articles containing quasi-experimental analyses of the relationship between RCL and health/health behaviors in Canada and the US from January 2006 to May 2023. Outcomes included cannabis use, cannabis use disorder, poisoning, traffic injury and fatality, and cannabis-related healthcare visits. Databases included PubMed, MEDLINE, Google Scholar; we also conducted gray literature searches. The initial search returned 1534 unique articles; 33 met our inclusion criteria and were included in our synthesis.

Results: Our findings suggested that RCL was associated with increased cannabis use among youth, cannabis-related healthcare visits, and cannabis use disorder among adults. The prevalence of acute cannabis poisoning was found to be high after recreational cannabis legalization. There was mixed evidence on cannabis-related traffic injury and fatality post-legalization.

Conclusion: This review indicated that RCL may have adverse consequences, but there are mixed effects on certain indicators of health and health behaviors. Further research is therefore needed to investigate the causal impact of RCL.

A9.4 - Lessons learned from evidence support during the COVID-19 pandemic: A national case study

Presented by: Kerry Waddell

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Background and Objectives: During the COVID-19 pandemic, decision-makers at all levels had to make difficult decisions. To do so, they required timely and relevant evidence to determine appropriate courses of action. However, not all forms of evidence were made equally available to decision-makers, nor were they in equal demand. We documented insights from those involved in decision-making about whether and how different forms of evidence were prioritized as well as lessons learned to inform future health challenges.

Approach: This project used case study methodology with four purposively sampled COVID-19 policy issues as sub-units of analysis for the case. These included a key sector (long-term care), a treatment (vaccine roll-out), a condition exacerbated by the pandemic (mental health and substance use) and a population (school-aged children). We used document analysis and in-depth qualitative interviews with a broad range of Canadian policymakers, organizational leaders, health professionals, and citizen leaders as the source of data for this study. A staged coding approach was used to determine key themes about factors influencing decision-makers' prioritization and use of evidence-support models during the pandemic.

Results: Between 20 and 40 interviews will be complete by May. Early themes from our initial work include: 1) decision-makers roles spanned all four policy areas; 2) decision-makers turned to their internal evidence shops as well as suppliers that were well known to them prior to the pandemic; 3) features of evidence support that decision-makers noted were particularly useful include short turn-around times for evidence products that were of a reliable quality, had transparent methods, contextualized findings, and information about what others were doing; 4) certain forms of evidence, namely data analytics and modelling, were prioritized over others; and 5) decision-makers felt their use of evidence could be improved through better coordination between demand and supply, especially individuals who are able interpret policy questions.

Conclusion: Understanding how decision-makers prioritize and use evidence in challenging times can help researchers and evidence intermediaries to improve their processes in the wake of crises to help ensure that future health and social-system challenges are approached using the best-available evidence.

A9.5 - An Inventory of Policy Levers for Influencing the Appropriateness of Care

Presented by: Lindsey Warkentin &

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Background and Objectives: Healthcare reform through evaluations of ‘appropriateness’ is a current focus for many jurisdictions. A variety of policy levers are available to decision makers to influence health system improvements towards higher value care, but these levers are not always identified in advance of developing policy recommendations, and few direct, empirical analyses are available to support their selection. A policy lever inventory was developed for health technology assessment (HTA) users in Alberta, Canada, to support policy development.

Approach: Relevant information was identified by a single reviewer through a 2021 scoping search of MEDLINE, forward and backward searching, and targeted grey literature searches. An Excel-based inventory was populated with a list of policy levers, their descriptions, policy effectiveness, and implementation considerations. Filters were developed to identify levers based on key characteristics. A user guide and case examples were also developed to help users learn to navigate the inventory. The inventory was iteratively refined through presentations and feedback from key user groups (including Ministry of Health departments, HTA partners, health service administration, and clinical staff).

Results: The inventory contains 53 policy levers aiming to influence service provision (16 levers), clinician behaviour (15 levers), fiscal policies (14 levers), populations or organizations (5 levers), and patient behaviour (3 levers). The levers vary in how they restrict decision making, including eliminating/restricting care choices (11 levers), guiding choices through incentives, disincentives, or default options (13 levers), enabling or encouraging change in behavior (20 levers) and providing information or monitoring without active intervention (9 levers). Effectiveness evidence was identified for 39 levers, with 9 levers considered high impact (>5% change to behaviour, utilization, or cost) or well-supported (>10 studies reporting effectiveness). Stakeholders found the inventory information useful, particularly for considering potential levers not frequently utilized within their respective programs.

Conclusion: This inventory of policy levers may help guide the implementation of the findings of HTAs and the development of strategies to support health system change. Specifically, the inventory can support health care decision makers in selecting policy levers that influence high-value care and are applicable and transferable to their context.

A9.6 - Public and patient perspectives on the use of clinical and administrative health data to identify and contact people at risk of future illness - the case of chronic kidney disease

Presented by: [Teresa Scassa](#)

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Background and Objectives: Ontario's health information privacy legislation permits the linkage of administrative health data for research but is silent on its ability to identify and contact individuals in those datasets. Following consultation with the Privacy Commissioner's office, we developed a pilot study to identify and contact by mail a sample of people at high risk for kidney failure, based on administrative data held by ICES. Before proceeding, we sought to understand public perspectives on case-finding and outreach.

Approach: We conducted six virtual deliberative discussion focus groups over seven weeks - three involving people living with chronic kidney disease and three with the general public. Meetings lasted three hours. Topics addressed: what would improve chances of opening the letter; participants' understanding of and response to the invitation letter; acceptability of proposed direct outreach; expansion from a research project to a population-wide program; and expansion to other health conditions, providing balanced information about each topic just prior to discussion. Thematic analysis was based on summary notes by the two co-moderators and audio recordings.

Results: Virtually all participants would participate in the study. The invitation letter was modified half-way through in response to feedback. Most felt strongly that the message should come directly from the health care provider (HCP), rather than from an unknown organization. If direct mailing is the way forward, all felt there should be a general notice to the public indicating their information may be used to identify and contact at-risk individuals, and the HCP should be kept in the loop. Participants saw little difference in conditions for participation if research or a population-wide program. Invitations should come from a single trusted source. If health authorities could identify people at high risk of a treatable life-threatening illness, most felt there is a social responsibility to notify people.

Conclusion: The public are open to using administrative data for case-finding and outreach, under conditions described above. This will require greater clarity in existing laws or revisions to these laws. Mechanisms are needed to permit timely testing of innovative uses of health information to facilitate effective learning health systems.

B1.1 - Impacts of the COVID-19 pandemic on primary care utilization: An analysis of primary health claims data in Alberta, Canada

Presented by: Mina Fahim

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Background and Objectives: Primary care experienced substantial shifts in the frequency and method of visits in the initial stages of the COVID-19 pandemic worldwide. Nevertheless, the extent to which primary care utilization has recovered to pre-pandemic levels remains unclear. This study investigates trends in the volume and modality of primary care utilization among Albertans throughout COVID-19 and examines the extent of recovery to pre-pandemic levels across patient demographics.

Approach: Repeated cross-sectional analyses among Albertans between 2018/19 and 2022/23 fiscal years (FY) were conducted to describe primary care utilization from the Alberta Health Practitioner Claims database. Primary care utilization was expressed as a percent proportion of Albertans with at least one visits to primary care and as an annual rate of visits per person. Virtual billing codes were used to determine modality of primary care visits and expressed as a percentage of all visits. Annual percent change (APC) calculations were used to compare levels of utilization in each fiscal year relative to one-year pre-pandemic (2019/20) across patient demographics.

Results: Relative to one-year pre-pandemic, the proportion of Albertans with at least one primary care visit decreased by 9.55% in the 2020/21 FY and 4.62% in the 2022/23 FY. Overall, annual rate of visits did not decrease in any of the post-pandemic years relative to 2019/20. In 2020/21, the largest APC in annual rates were observed among Albertans aged 5-11 years (-38.42%), ≤4 years (-33.42%), healthy newborns (-30.36%), major newborns (-25.49%), and those with no health conditions (-20.9%). Three-years post-pandemic, those aged 18-24 (-5.84%), living in remote areas (-4.19%), and in the South zone (-9.13%) demonstrated decreased annual rates compared to one-year pre-pandemic. In the 2020/21 FY, 23.77% of all primary care visits were conducted virtually, which decreased to 14.43% in 2022/23.

Conclusion: Fewer Albertans visited primary care throughout the COVID-19 pandemic, however, annual visit rates remained stable and were largely mitigated by virtual care. Further research to understand groups most impacted by COVID-19 will be critical to informing primary healthcare delivery in the post-pandemic landscape.

B1.2 - Understanding and addressing changing administrative workload in primary care in Nova Scotia and New Brunswick

Presented by: Ruth Lavergne

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Background and Objectives: There is an urgent need to understand factors contributing to the gap between growing per-capita supply of primary care providers and declining patient primary care visits. Administrative activities, including work related to caring for individual patients and clinic administration, may play a substantial role in understanding changes to primary care workload. Factors internal to primary care clinics and health system context may impact the efficiency and coordination of both direct and indirect patient care activities.

Approach: We conducted qualitative interviews with family physicians, nurse practitioners, and administrative staff from primary care clinics in Nova Scotia and New Brunswick. Questions focused on administrative workload relative to patient care and clinic administration, changes in workload over time, factors driving changes, and suggestions for local and system level refinements. A diverse sample was purposively selected. Braun and Clarke's reflexive thematic analysis was employed. Themes and sub-themes were initially identified. A second analytical phase examined similarities and differences between family physicians, nurse practitioners and administrative team member interviews and explored variation across payment model, practice model, and practice settings.

Results: Information management is central to health care delivery, but often not valued or actively supported. Within primary care most administrative work requires both information management and clinical judgment. Strategies to address administrative workload must be tailored to the type of administrative work. A typology was therefore developed:

- 1) information management (transferring data from one place to another)
- 2) information stewardship (transferring some information, protecting privacy)
- 3) information management and clinical judgement (determining eligibility for example)
- 4) information management and clinical judgement and value/normative judgement (advocacy)

Some areas of concern included: lack of control over decisions concerning processes, need for improvements to electronic medical records and connectivity with other parts of the health care system, improved training for administrative staff, and the need for office-based guidelines.

Conclusion: Administrative workload directly impacts recruitment and retention of healthcare professionals and may influence primary care providers to choose options other than community-based primary care. Identifying practical strategies to make information management more efficient can support innovative healthcare models, improve patient care, and improve the wellbeing of primary care providers.

B1.3 - Physician engagement, organizational context, and innovation design and complexity as barriers and facilitators to adopting a Community Health Navigator program in primary care.

Presented by: Kerry McBrien

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Background and Objectives: We conducted a series of RCTs testing a Community Health Navigator (CHN) intervention in partnership with four Alberta Primary Care Networks (PCNs). CHNs were trained to support patients with two or more chronic conditions and any modifiable social barrier impacting their ability to manage their conditions. While overall evaluation of the CHN program is underway, this study aims to describe perceived barriers and facilitators specifically related to adopting the CHN program.

Approach: The four trials ran from 2018 to 2023 and enrolled 422 patients overall. An evidence-based program theory informed program strategies, CHNs' scope of practice, roles, and responsibilities. We used the RE-AIM framework and the Consolidated Framework for Implementation Research (CFIR) in a qualitative descriptive study to evaluate program implementation. We conducted semi-structured interviews (in person and by videoconference) with CHNs and their supervisors, healthcare providers (primary care physicians and allied health clinicians), and PCNs leaders. Using codebook thematic analysis, three researchers coded all interview transcripts, and all authors iteratively revised the coding and analysis.

Results: Data from 58 interviews with CHNs (23), healthcare providers (22), and PCN leaders (13) supported three themes related to barriers and facilitators to adopting the CHN program: Innovation design and complexity; Physician engagement; and Organizational context. Most barriers were perceived in relation to organizational context: provider time constraints, burnout, PCN and clinic staff turnover. More facilitators than barriers were perceived in relation to innovation design and complexity, including streamlined processes, funding, and training for CHNs. Poor professional attitudes and motivation towards the CHN program were described in relation to a limited understanding of patients' health-related social needs, which narrowed physicians' capacity to appreciate the potential benefits of the innovation. Program alignment with PCN and physicians' values were facilitators to adoption.

Conclusion: This study identified barriers and facilitators to adopting a Community Health Navigator (CHN) program in primary care. Lessons learned will help leaders and implementers to successfully sustain the program and will inform potential scalability of the CHN program as a PCN health service.

B1.4 - Increased primary care continuity associated with decreased hospitalizations and emergency visits in patients living with diabetes in Alberta: a population-based retrospective analysis.

Presented by: Terrence McDonald

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Background and Objectives: Primary care provider (PCP) continuity is associated with lower acute care use and medical costs among patients living with diabetes. However, the practice landscape is changing; more PCPs practice part-time and in teams. The contributions of clinic continuity versus individual PCP continuity are unknown. Amongst adults living with diabetes in Alberta, we aimed to: Determine how often they visited their PCP annually and Identify the relationship between primary care clinic continuity and acute care use.

Approach: We used a cross-sectional design with Alberta Health administrative data. Patients 15 years and older with diabetes on March 31, 2015 were included; their PCPs were identified using physician claims 2015-18. PCP continuity was calculated using Usual Provider Continuity (UPC) Index. Clinic continuity was calculated using a group care rate (GCR) which is the proportion of a patient's visits to other PCPs within their attached PCP's clinic. GCR was classified as: 0%, 1-50%, 50-99%, 100%. Descriptive statistics were completed and two-stage hurdle models (logistic and zero-truncated negative binomial) were used to determine rates of emergency department (ED) visits and hospitalizations.

Results: There were 202,222 people with diabetes. On average, they saw their PCP five times per year from 2015-18. There were more rural patients with 100% GCR (29.6%) versus metropolitan (19.7%), and they saw their own PCP less often: 16.93 (SD 18.09) visits compared to 19.09 (SD 21.30) over the three-year study period. Rural patients with diabetes had more ED visits (6.68 (SD 10.35) versus 3.14 (SD 6.08)) and hospitalizations (1.10 (2.09) versus 0.67 (1.43)) compared to metropolitan patients. 100% UPC and 100% GCR were negatively associated with ED visits and hospitalizations for all levels of patient complexity including the complex (clinical risk grouper 5-9 (O.R. 95% CI 0.54 (0.52-0.57), IRR 0.72 (0.70-0.74) and OR 0.64 (0.61-0.66), IRR 0.78 (0.75-0.81)).

Conclusion: Clinic continuity was as important as individual provider continuity and both were associated with reduced ED visits and hospital stays in patients living with diabetes. These results support practice structures that might include team based and shared-cared models.

B2.1 - Engaging patients & caregivers : The role of non-traditional actors in shaping innovation in a healthcare living lab project

Presented by: Genevieve Cyr

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Background and Objectives: This study explores the vital role of co-creation in healthcare innovation, emphasizing the shift from passive patient roles to integral architects of solutions aligned with their daily experiences. Recognizing patients as active contributors is crucial, and Living Labs (LL) emerge as an open innovation methodology that can integrate patient experiential knowledge.

Approach: The study, employing an in-depth case study and utilizing Actor Network Theory (ANT) and Strategic Analysis, investigates how patient-caregiver partners challenge healthcare hierarchies, influence decision-making networks, and impact innovation outcomes. Spanning September 2018 to August 2022, data collection included 23 semi-structured interviews, 2 group discussions, and project documentation. Analysis sought to comprehend their role in innovation, exploring factors facilitating or hindering engagement. Multiple readings of interviews uncovered connections, employing qualitative content analysis and the Miles and Huberman approach for synthesis. Emphasizing the sequence of events through "bracketing" provided insights into activity evolution.

Results: The study unveils a transformative dynamic in engaging end-users within Living Labs (LL) in healthcare. The project started with a testimonial from a patient partner, acting as a catalyst for certain team members. While inspiring the creation of a patient journey, challenges emerged regarding the testimonial's relevance for current patients and potential crystallization around a single patient's experience. The project narrative evolved to encompass a broader range of patient realities, featuring different patient partners with varied experiences. This diversification decentralized power among multiple patient voices, revealing various entry points into the healthcare system, each offering unique services and experiences.

Conclusion: The study contributes to understanding the transformative impact of patient-caregiver partnerships in healthcare innovation. It underscores the need to address power imbalances between healthcare professionals and patients, advocating for strengthened caregiver involvement in decision-making. Future research could explore "slow co-production" for deeper patient engagement.

B2.2 - Mechanisms supporting a genuine patient-centered care model: the case of a co-operative clinic.

Presented by: Coralie Darcis

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Background and Objectives: Patient involvement has been rare within the healthcare sector, frequently consisting of tokenistic participation with limited influence (Hirschhorn et al., 2022). However, some healthcare organizations have succeeded in placing patients at the center of their decision-making processes, such as the Saskatoon Co-operative Clinic (SCC), governed by its membership since 60 years. This research examines to what extent a co-operative organizational governance model enables genuine patient-centeredness, and the applicability to the broader Canadian healthcare system.

Approach: The research focuses on Canada's largest cooperative healthcare clinic, the SCC in Saskatoon, created in 1962 by patients and run by its members ever since. The research approach is qualitative and we mobilized three complementary data collection methods: semi-structured interviews with various stakeholders (e.g., board members, management staff, care providers, co-op members/patients), non-participative observations of meetings (e.g., board and membership meetings) and clinic operations (e.g., huddle meetings), and document analysis (e.g., regulations, flow chart, newsletters). At this stage, we have conducted 23 interviews and initial observations. The collected data are being analyzed and coded using NVivo software.

Results: The initial results show that the clinic has in place a number of mechanisms to ensure patient involvement in decision-making (e.g., internal regulations, patient board members, the opportunity to propose resolutions, inclusion in various committees that represent patient groups). Alongside those formal mechanisms, we note that certain informal mechanisms play an important role in patient participation, such as strong cultural competency among staff and a work culture that promotes patient-centeredness and responsiveness to community needs. In addition, the SCC includes two clinic sites which serve distinct patient populations. And although there is strong evidence of a patient-centered model in both clinics, we also observed variations in terms of decision making and patient representation. We therefore explore how these mechanisms interfere and unfold within the two sites.

Conclusion: This research will identify factors hindering and facilitating a patient-centered primary model of care which has been advocated for decades but struggling to take hold (Aggarwal et al., 2023). Our findings will propose "best practices" transferable to other clinical contexts with regard to patient engagement and participation practices.

B2.3 - Co-designing a person-centred intervention to promote exercise and physical activity in persons of South Asian origin following total knee arthroplasty

Presented by: Laurie Goldsmith

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Background and Objectives: Total knee arthroplasty (TKA) is Canada's second most common surgery. Many patients report post-TKA issues, including not meeting physical activity guidelines. As persons of South Asian (SA) origin are Canada's largest ethnic group, our team—including patient research partners—identified and responded to SA patients' interest in post-TKA exercise and physical activity promotion. This study used co-design to develop an exercise and physical activity intervention for SA persons in the active-living phase of TKA recovery.

Approach: We co-developed the South Asian Exercise Research (SAER) intervention through an iterative, multi-stage process. Co-design partners beyond the research team were involved throughout and included 15 SA persons who received TKA and 11 health professionals. Intervention design was guided by the combination of (1) developing patient-centred guiding principles for the intervention; (2) ensuring intervention components were supported by behavioural theory and clinical efficacy research; and (3) incorporating patient, caregiver, and health professional perspectives on intervention feasibility. Intersectionality principles and complex intervention development guidelines provided further guidance. Co-design activities for iterative intervention development included deliberative dialogues, focus groups, and scoping reviews.

Results: The SAER intervention's guiding principles included ensuring cultural relevance (e.g. recognizing the importance of improving squatting in this population; providing language support), providing support for and education about knee-specific exercise and physical activity, exposing participants to different physical activity types, engaging participants to integrate regular physical activity into daily activities, and ensuring the intervention was low cost to implement and sustain. Key intervention elements included clinician-referral; 12-week duration; twice-weekly, supervised, group-based exercise and culturally relevant physical activity classes (e.g., SA regional and Bollywood dances, meditative yoga); weekly group education sessions; operating at familiar locations; weekly 1:1 action planning coaching (telephone); and language support (e.g., sessions in Punjabi). Key outcome metrics included increased exercise and physical activity, knee-related quality of life, and long-term TKA satisfaction.

Conclusion: The iterative co-design process supported the successful development of a SA culture-sensitive, person-centred, post-TKA exercise and physical activity intervention that is ready for feasibility testing. This intervention also has potential for adaptation to other populations prioritizing cultural sensitivity and person-centredness.

B2.4 - Exploring the lived experiences and perspectives of sepsis survivors and family members to inform population-based sepsis communications in Canada

Presented by: Sara Mizen

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Background and Objectives: Sepsis is a common and potentially life-threatening complication of the body's response to infection. The burden of sepsis is high. As most sepsis cases start in the community, public awareness of sepsis is central to improving survival and disability. Yet, public knowledge of sepsis is generally low globally. To uncover possible factors contributing to poor knowledge and strategies for improvement, we conducted a qualitative descriptive study engaging individuals with lived experiences of sepsis.

Approach: We conducted focus groups with sepsis survivors and with family members of sepsis patients. Our semi-structured focus group guide covered three broad discussion topics that could inform the development of public communications: circumstances leading to sepsis, impacts of sepsis, and interactions with healthcare providers. Convenience samples were recruited through a previously conducted national survey and through social media and newsletter posts by Sepsis Canada. We held focus groups using Zoom. Audio recordings were transcribed, and transcripts imported into NVivo 12. Three team members coded transcripts and generated themes using a deductive (from the guide) and inductive (from the transcripts) approach.

Results: We conducted 11 focus groups with 32 participants (21 survivors; 11 family members). Participants' median age was 53 years, three-quarters self-identified as women, and all reported some post-secondary education. We synthesized three overarching messages from participant's accounts of profound physical and mental impacts of sepsis and perceived health system failures: (1) Understand that sepsis is serious and common, (2) Know sepsis signs and symptoms, and (3) Be health attentive and self-advocate. Potential barriers to improving public knowledge included: (1) sepsis is not easily understood, (2) perceived lack of personal relevance, and (3) fatigue with health messaging, particularly due to COVID-19. Suggestions to create effective hooks to draw public attention to sepsis included using personal stories and incidence data and partnering with other health campaigns.

Conclusion: By engaging individuals with lived experiences of sepsis, we identified key messages and barriers to consider in building a partnered sepsis campaign. The next phases of our work will design, and test creative concepts and messages focused on improving symptom recognition, establishing personal relevance, and fostering health advocacy.

B2.5 - Contribution of accompanying patients to the optimization of the medical, physical and psychosocial preparation of patients awaiting liver transplantation: an exploratory study

Presented by: Shuaiqi Yuan

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Background and Objectives: In 2022, Quebec had 97 liver transplants, At CHUM, about 65 individuals benefit from it each year. Effective transplantation requires medical preparation, physical fitness, and psychosocial support. CHUM supports this with a multidisciplinary team and a patient portal providing care plans and device monitoring (pedometers, scales, blood pressure monitors). The initiative includes accompanying patients (AP) to foster beneficial behaviors and successful outcomes, exploring this approach from the viewpoints of patients, healthcare professionals, and APs.

Approach: A qualitative exploratory study was conducted through semi-structured interviews with 5 healthcare professionals, 10 patients, and 3 accompanying patients. The discussions focused on identifying the most effective times for AP interventions in the patient's journey, the methods of these interventions (in-person or online), the objectives, the contributions, and the ways to assess them. Thematic analysis was carried out, involving a comprehensive cross-referencing of various data sources to gain a multi-faceted understanding of the impact and effectiveness of APs in the healthcare setting.

Results: Our study reveals the vital role of APs in consistently supporting liver transplant preparation. Initially, the interactions of patient-AP are essential, evolving into effective web platform follow-ups through chat and video-conferencing. Healthcare professionals advocate for AP integration into clinical teams, appreciating their unique shared experiences with pre-transplant patients. APs offer invaluable role models, encouraging patients to adopt beneficial lifestyle habits. Patients deeply value APs for emotional support and practical advice on medication, diet, and exercise. This interaction provides APs with a sense of purpose and aids in maintaining their health. Overcoming initial hesitations, APs find it fulfilling to guide patients in using connected health devices, sharing their insights and techniques. This support system plays a crucial part in enhancing patient readiness for transplantation.

Conclusion: This exploratory study helps to better define the role APs can play in supporting patients undergoing liver transplantation, not only emotionally but also informatively and educationally. Their participation in the clinical team is seen as an essential contribution to the success of the transplant preparation process.

B3.1 - Chronic Disease Prevalence and Preventive Care among Ontario Social Housing Residents

Presented by: Gina Agarwal

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Background and Objectives: Older adults living in social housing report poorer health status and have a higher burden of a multitude of chronic illnesses. This study aimed to estimate the prevalence of chronic diseases, flu vaccination, cancer screening among Ontario social housing residents versus non-residents of the same age and sex.

Approach: We undertook a population-based cohort study using health administrative data for all health-insured Ontarians alive on the index date (January 1, 2020). Social housing residents were identified using social housing postal codes. Validated administrative data case definitions were used to identify individuals with diabetes, hypertension, chronic obstructive pulmonary disease [COPD], asthma, congestive heart failure, and cardiovascular disease (CVD). Influenza vaccination was identified and mammography, Pap screening, and colon cancer screening among eligible women were identified validated health administrative data.

Results: The prevalence of all six chronic diseases was higher among social housing residents across all age groups: 40-59 years, 60-79 years, and 80+ years. The influenza vaccination rates in 2018 and 2019 were relatively lower among social housing residents aged 60-79 years and 80+ years. The percentage of women aged 40+ years with a mammogram in 2018-2019 was lower among social housing residents, overall and across age groups, compared with non-residents: overall: 20.6% vs. 28.3%; : 40-59 years 22.3% vs. 26.9%; 60-79 y 26.7% vs. 36.4%; overall: 20.6% vs. 28.3%;). Similarly, the percentage of women with pap screening in 2018-2019 was relatively lower, overall and across all age groups: overall: 21.7% vs. 31.0%; 40-59 y 36.1% vs. 42.0%; 60-79 y 15.0% vs. 22.3%.

Conclusion: This study demonstrates a greater burden of chronic disease and poorer preventive care among residents of social housing compared to non-social housing residents in Ontario. **Impact:** These results are important to informing primary care and public health prevention efforts tailored to this growing, vulnerable population.

B3.2 - Exploring the Relationship between Addictions and Mental Health Conditions and People Experiencing Homelessness in Alberta, Canada

Presented by: Rebecca Barry

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Background and Objectives: Addiction and mental health (AMH) issues present significant psychosocial challenges and economic burdens in Canada. Research indicates a higher prevalence of homelessness among individuals affected by AMH conditions. Our administrative healthcare data presents an opportunity to investigate homelessness, AMH diagnoses, and healthcare utilization in this population. This study seeks to enhance our understanding of the complex relationships between AMH conditions and homelessness in Alberta, Canada.

Approach: This retrospective cohort analysis leverages linked administrative data from Alberta Health Services, encompassing hospitalizations, emergency department visits, and physician consultations across Alberta. We included adults residing in Alberta with an AMH diagnosis within 5 years before the index date of April 1, 2018, who were alive on that date. People experiencing recent homelessness (PEH) were identified through hospitalizations or emergency room visits coded as Z590 or Z591 or by a Homeless or Supportive housing (SH) residential type indicator within 180 days of the index date. Comparisons were made between PEH and people not experiencing homelessness using chi-square tests and t-tests.

Results: Among the 762,798 individuals meeting study criteria, 5,811 (0.8%) were recently homeless. PEH were notably younger (mean=39 vs. 42, $p<0.001$) and more frequently male (63% vs. 42%, $p<0.001$) than individuals with AMH conditions not experiencing homelessness. In the 5 years leading to the index date, PEH exhibited higher hospitalization rates (mean=4.0 vs. 1.8, $p<0.001$) and more emergency room visits (mean=23 vs. 6.3, $p<0.001$) than their counterparts with AMH conditions. PEH were also more likely to be diagnosed with substance use disorders (42% vs. 14%, $p<0.001$) and psychotic disorders (13% vs. 2%, $p<0.001$). However, they were significantly less likely to be diagnosed with mood disorders (23% vs. 29%, $p<0.001$) or anxiety disorders (24% vs. 47%, $p<0.001$).

Conclusion: Within the population of individuals with diagnosed AMH conditions, PEH demonstrated heightened healthcare utilization and a greater likelihood of substance use and psychotic disorder diagnoses. Future steps in this study will examine outcomes over the subsequent two years, encompassing emergency room visits, hospitalizations, and mortality rates.

B3.3 - Transitions of care from the hospital to community settings for people experiencing homelessness: Learnings from The Navigator Program in Toronto, Canada

Presented by: Oluwagbenga Dada

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Background and Objectives: People experiencing homelessness (PEH) have complex health needs yet encounter barriers to accessing healthcare services. We developed The Navigator Program, where Homeless Outreach Counsellors (HOCs) work with PEH to improve inpatient care, support discharge planning, and provide short-term case management post-discharge (i.e., addressing psychosocial needs and connecting PEH to primary care providers). A hospital-based program, the goal is to support transitions of care from hospital to community settings, aiming to address health inequities.

Approach: An RCT is measuring impact on post-discharge outcomes, and we conducted a qualitative process evaluation to understand how program implementation, mechanisms of change, and context shaped the program. Our presentation will explore if, how and in what ways the program supports the transition process from hospital to community settings for PEH. Here we report on thematic analysis of in-depth interviews with HOCs (n=2), program implementers (n=4), and community service providers (CSPs) (n=13). Interviews explored transition of care by asking participants' perspectives on communication between HOCs and CSPs, strategies employed in following PEH in the community and other themes.

Results: Initial analysis has focused on mechanisms supporting or hindering the transition from hospital to community settings for PEH. Preliminary findings suggest that meeting PEH upon hospital admission, effective communication between the hospital care team and CSPs, following up on PEH discharge plans, connecting PEH to CSPs close to discharge, and sending appointment reminders to PEH were vital in facilitating the smooth transition of their care to CSPs. Challenges include connecting with PEH with very short hospital stays or who self-discharge. This presentation will report on how the program setting and other mechanisms have shaped transition of care for PEH enrolled in the program.

Conclusion: Conducting this process evaluation allows us to understand what works, for whom, and under what contexts. Our findings will inform healthcare providers and policy research on strategies hospitals could adopt to ensure a smooth transition from the hospital to community settings for PEH.

B3.4 - Differences in time to colon cancer diagnosis among individuals with severe psychiatric illness

Presented by: Jonah Gorodensky

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Background and Objectives: Adults with severe psychiatric illness (SPI) experience worse outcomes across a host of cancer-related metrics. Early colon-cancer detection is understood to be critical for improving outcomes. The diagnostic interval is a useful method of measuring time-to-diagnosis and understanding the cancer diagnostic journey. We investigated the association between having an inpatient or outpatient SPI and the colon cancer diagnostic interval.

Approach: We conducted a retrospective cohort study of individuals diagnosed with colon cancer in Ontario between 2007 and 2019 using administrative data. We identified individuals with pre-existing SPI, who were further categorized as having an inpatient or outpatient SPI. Using an established algorithm, we calculated the diagnostic interval as the number of days from first colon cancer-related health-care encounter to diagnosis. Diagnostic pathways were assessed descriptively, including whether the diagnosis was made symptomatically or asymptotically. We used quantile regression, stratified by symptom status at diagnosis, to quantify the association between SPI status and the diagnostic interval.

Results: We identified 43,123 individuals with colon cancer; 41,865 had no history of SPI, 839 had an outpatient SPI history and 419 an inpatient SPI history. Individuals with SPI were significantly less likely to be diagnosed asymptotically (inpatient: 10.3%, outpatient: 13.4%, no SPI: 19.0%, $p = <0.001$). Results of adjusted quantile regressions demonstrated that individuals with both inpatient and outpatient SPI experienced significantly longer symptomatic diagnostic intervals than individuals without SPI. For example, the 50th percentile symptomatic diagnostic interval was 48 (95% CI 27, 69) days longer in individuals with outpatient SPI and 56 (95% CI 29, 82) days longer in individuals with inpatient SPI as compared to those without SPI, after adjusting for covariates.

Conclusion: Individuals with SPI have longer diagnostic intervals and experience suboptimal diagnostic pathways. This represents a significant inequity in cancer care, and quantifying this gap should serve as a first step on the path to targeting and improving cancer diagnostic care for individuals with SPI.

B3.5 - The impact of Old Age Security program on health and health behaviors of Canadian seniors

Presented by: Mohammad Hajizadeh

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Background and Objectives: The Old Age Security (OAS) program is the first pillar of the Canadian retirement income system, offering a Guaranteed Annual Income (GAI) to the senior population. The program comprises a universal flat benefit, the OAS pension, and a low-income benefit, the Guaranteed Income Supplement (GIS) pension. We aim to evaluate the impact of OAS on several health outcomes and health behaviours of low-income seniors, an aspect that has received limited attention in the existing literature.

Approach: We use a regression discontinuity design (RDD) to analyze data from five cycles of the Canadian Community Health Survey conducted between 2015 and 2019, focusing on low-income seniors with an annual income below the \$26,000 threshold who are beneficiaries of both the GIS and OAS pensions. We assess the impact of the OAS program on health outcomes, including self-reported general and mental health status, body mass index, Patient Health Questionnaire (PHQ-9) depression scale, suicidal behavior, and life satisfaction, as well as on health-related behaviors such as smoking, alcohol consumption, physical activity, and the intake of fruits and vegetables.

Results: Our analysis reveals a significant income increase for individuals under this income threshold, largely attributed to the OAS pensions. Our study indicates a positive impact of the OAS program on the health outcomes of seniors. This was evidenced by improvements in self-assessed general and mental health status, increased life satisfaction, reduction in depression scale, and suicide attempts. Additionally, we observed a decline in the number of smokers among seniors after receiving OAS benefits.

Conclusion: Our findings reveal that the OAS program, which provides a GAI for Canadian seniors, significantly improves health outcomes and encourages healthier behaviors. These findings underscore the potential for a similar initiative targeted at the younger population in Canada to yield similar positive health outcomes.

B4.1 - The Impact of Residential Mobility on Acute Mental Health Diagnosis among Immigrants and Canadians/Long-term Residents in Ontario

Presented by: Glenda Babe

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Background and Objectives: Residential mobility refers to a person's geographic movement, and is influenced by socio-economic factors. For immigrants, moves signify socio-economic and cultural assimilation, indicating their incorporation into the host society. However, frequent moves may lead to heightened stress and mental health issues without proper support. This study aims to examine how immigrants' mental health is affected by residential mobility in their initial five years, comparing it to Canadian/Long-Term Residents (LTR).

Approach: Using population-based demographic and health administrative data, we conducted a matched-cohort study of adult immigrants (≥ 18 years) in Ontario (2006-2016) matched with Canadian/LTR on age, sex, and geography. Immigrants were identified through the Immigration Refugees and Citizenship Canada Permanent Resident Database. Residential mobility in the first five years was categorized as non-movers, low-mobility (1-2 moves), or high mobility (3+ moves). Outcomes included mental health hospitalization or emergency department visits. We used stratified multilevel logistic regressions models to calculate adjusted odds ratio (OR) with 95% confidence intervals to examine mental health outcomes by mobility category among Canadian/LTR, non-refugee immigrants and refugees.

Results: A total of 761,356 immigrants (14% refugees; 86% non-refugee immigrants), mean age 36 ± 14 years, were matched with 3,045,424 Canadian/LTR (mean age 37 ± 14 years). Refugees were highly mobile (73.5% with 1+ move in first five years), followed by non-refugee immigrants (69.7%) and Canadian/LTR (47.5%). Compared to Canadian/LTR non-movers, those with low mobility (aOR 1.26; 95%CI 1.23-1.28) and high mobility (aOR 2.64; 95%CI 2.56-2.73) had higher odds of acute mental illness. Similar patterns but with lower magnitude of effect were observed for refugees, where those with low mobility (aOR 1.16; 95%CI 1.07-1.25) and high mobility (aOR 1.75; 95%CI 1.56-1.93) had increased odds of mental illness. Non-refugee immigrants with low (aOR 1.09; 95%CI 1.05-1.13) and high mobility (aOR 1.75; 95%CI 1.43-1.35) also had high odds of mental illness.

Conclusion: High residential mobility is associated with increased mental health system usage. This association is attenuated in immigrants and refugees compared to Canadian/LTR, indicating potential protective factors. Improved socioeconomic status via mobility following settlement in immigrants with downward attainment of socioeconomic status via mobility in Canadians/LTR may contribute to these findings.

B4.2 - Disability support following acute mental health care utilization among immigrants and refugees in Ontario, Canada: a population-based study.

Presented by: Glenda Babe

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Background and Objectives: Ensuring immigrants and refugees are well supported following a mental health hospitalization and emergency room visit is important for good short- and long-term health outcomes. Such supports may vary by the visa class through which immigrants to Canada resettle. Consequently, their risk of long-term disability may also differ. We sought to test the association between immigration visa class and disability status among immigrants following an acute care visit to hospital for mental illness.

Approach: Using population-based demographic and health administrative data, we conducted a cohort study of immigrants (18-64 years) with a hospitalization or emergency department visit for mental illness (2003-2022). We identified immigrants through the Immigration Refugees and Citizenship Canada Permanent Resident Database and compared disability support following hospital discharge in five exposure categories: Economic, Family, Privately Sponsored Refugees (PSR), Government Assisted Refugees (GAR), Protected Person, Humanitarian and Compassionate (H&C). We determined disability status through Ontario Disability Support Program or Long-Term Care facility records. Employing Cox proportional hazards model with restricted cubic splines, we calculated hazard ratios to assess time to disability.

Results: A total of 150,572 immigrants received hospital-based acute mental health care during the study period (40% Economic Class, 35% Family Class, 6% PSR, 5% GAR, 2% H&C, and 12% protected person). Mean age at discharge was 36 ± 12 years, with 53% were female, and 28% lived in high-deprivation neighborhoods. Of all immigrants, 17,832 (12%) received long-term disability support within one year of discharge. GARs had the highest risk of disability (n=1,868, 24%, aHR 2.57; 95%CI 2.39-2.77), followed by PSR (n=1,550, 18%, aHR 1.79; 95%CI 1.65-1.94), protected person (n=3,204, 18%, aHR 1.89; 95%CI 1.76-2.02), H&C (n=427, 16%, aHR 1.54; 95%CI 1.34-1.76), and family class (n= 6,085, 11%, aHR 1.22; 95%CI 1.06-1.30). Hazard ratios decreased over time for all immigration categories.

Conclusion: Risk of disability is high for all immigrants, particularly for GARs and protected persons, following hospital and emergency department discharge for mental illness. Tailored resettlement initiatives and support services are crucial to address the diverse needs of immigration categories and to provide essential preventive and post-discharge assistance for mental illness.

B4.3 - Patient and Family's Perspective of Measurement-Based Care in Child and Adolescent Mental Health Program

Presented by: Bishnu Bajgain

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Background and Objectives: Measurement-based care in mental health has been shown to improve patient outcomes and care satisfaction. While the implementation of MBC in pediatric mental health has been studied, few studies focus on patients' experiences, which is crucial to ensure that the MBC design is patient-centred and to improve the integration of MBC in mental health services. We aimed to explore patients' experiences of MBC in a child and adolescent mental health centre (The Summit) in Calgary.

Approach: This is a multi-methods study design. Study participants include youth (14 years and over) and their caregivers who accessed the services at The Summit Centre from March-September 2023. Data were collected via a web-based survey with a mix of rating scales and open-response questions focusing on their experiences completing measures and their use in their child's clinical care. Follow-up semi-structured interviews are underway to explore patient and caregiver experiences of MBC further. Descriptive statistics were used to summarize demographic characteristics and rating scale responses. An inductive, descriptive content analysis approach was used to analyze the qualitative data from surveys.

Results: Seventeen youths and 75 caregivers completed the survey. Most of the participants (>97%) expressed that completing MBC was easy and convenient, and 75% of caregivers agreed that MBC was helpful in their child's care. Most participants (>93%) agreed or strongly agreed that the measures used for MBC at the centre are appropriate to capture their concerns. There were three main findings from the qualitative data: (1) caregivers expressed that filling out measures helped them view their child more holistically; (2) MBC enhanced communication with care providers before and during their clinical encounters; (3) MBC helped shared decision-making. Interviews are focusing on further exploration of these findings.

Conclusion: This study presents the perspectives of youth and their caregivers towards MBC. The findings are being used to optimize the design and implementation of MBC at The Summit. They will be helpful in addressing the challenges organizations may experience in the successful implementation of MBC in youth mental health services.

B4.4 - Optimizing Mental Health and Substance Use Health Workforce Regulation in Canada: Enhancing Equitable Access to Providers and Services

Presented by: Sophia Myles

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Background and Objectives: The mental health and substance use health (MHSUH) workforce is in critical demand. However, the impact of health practitioner regulatory frameworks on equitable access to MHSUH services and workforce mobilization has received little attention. We address this gap by comparing regulatory policy across Canada for a range of MHSUH providers, examining the factors contributing to regulatory reform, and identifying leading regulatory practices to support equitable access to MHSUH services and providers.

Approach: Building on foundational work by our team and guided by an expert advisory committee (including those with lived and living experience), we conducted a comparative policy analysis to capture the regulatory landscape for MHSUH providers across Canada. This was completed over two phases: a document review and synthesis of academic and grey literature, followed by a series of key informant interviews. Using the data from these two phases, we developed key themes and insights into the impact of regulatory policy reform on equitable access to MHSUH services and providers in Canada.

Results: Key to addressing the rising demand for MHSUH services in Canada is the availability and accessibility of qualified MHSUH providers; however, access remains highly variable and inequitable across the country. We identified themes around the value of flexible regulatory frameworks that allow for cross-jurisdictional MHSUH services (including virtual services), the need for system integration to recognize lived experience and cultural knowledge, the inequities in public protection based on policy legacies and stigma (particularly for substance use health), and the impact of regulatory gaps on access and funding. Modernizing regulation by drawing on these leading regulatory practices would help provide Canadians with more equitable access to MHSUH providers and support critical workforce planning.

Conclusion: As part of the CIHR National Standards for Mental Health Services initiative, this project will contribute to nationally coordinated regulatory standards for the MHSUH workforce that complement provincial/territorial approaches. Regulatory policy reforms have the potential to contribute to health equity by improving access to MHSUH providers and services across Canada.

B4.5 - Policy Options for a Pan-Canadian Mental Health and Substance Use Health Workforce Strategy

Presented by: Mary Bartram

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Background and Objectives: There is a wide gap between the mental health and substance use health (MHSUH) needs of the population and what the service system can provide. To help address this gap, Canada needs a fit-for-purpose MHSUH workforce strategy to coordinate planning across jurisdictions, provider types, and public and private sectors. This project synthesized evidence, mapped the relevant policy landscape, and refined key priorities through a policy dialogue.

Approach: Our three-phase project was guided by a pan-Canadian advisory committee that included MHSUH service users and providers. In Phase 1, we conducted an international environmental scan of workforce strategies and reforms published between 2012 and 2023, identifying 311 policy documents and 39 academic papers. In Phase 2, we conducted a virtual policy dialogue with a diverse cross-section of representatives from government, provider, and lived experience organizations. In Phase 3, we generated a policy report describing the leading practices and key policy options to support a high-quality, sustainable, diverse, and culturally competent MHSUH workforce, supported by a call to action.

Results: Our research underscores lessons learned from international MHSUH workforce strategies that can be adapted to the Canadian context. Policy dialogue participants reflected on global trends, such as flexible statutory regulation models, specialized MHSUH workforce training initiatives, workforce forecasting using public data dashboards, and new funding for historically privately funded MHSUH practitioners. Top priorities for a pan-Canadian MHSUH workforce strategy were identified in the key topic areas of recruitment, retention, representation, training, planning, role diversification, and system integration. Collaboration among mental health, substance use health, primary care, and other sectors was identified as essential. Additional priorities included optimizing MHSUH workforce data collection, especially for unregulated providers, enhancing digital infrastructure, ensuring virtual care competencies, and integrating roles like peer support into care teams.

Conclusion: Our findings reveal key opportunities for a pan-Canadian MHSUH workforce strategy, including: integrating the MHSUH workforce into tailored federal health transfers, addressing data gaps through a sector-based rather than provider-specific approach, providing flexible quality assurance mechanisms, and prioritizing the MHSUH workforce in the ongoing work developing national MHSUH service standards.

B5.1 - The influence of the COVID-19 pandemic on the characteristics of health care utilization patterns of older adults with comorbidities and high emergency department use

Presented by: Jaskaran Benepal

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Background and Objectives: Older adults are often impacted by comorbidities which may contribute to increased emergency department (ED) use. Hence, characteristics associated with frequent use of the ED and health care utilization patterns for older adults were investigated over the first year of the COVID-19 pandemic.

Approach: A retrospective cohort study was conducted on a population of individuals ≥ 65 years old with high ED use (≥ 5 visits) from Southern Ontario. Data for 2020/21 were obtained from National Ambulatory Care Reporting System (NACRS) and Discharge Abstract Database (DAD) on age, previous high ED use, home care status, number of ED visits, Canadian Triage and Acuity Scale (CTAS), presence of primary physician, hospitalizations, and discharge diagnoses.

Results: 4063 patients with high ED use accounted for 28016 visits (mean: 6.9, SD: 4.7, median: 6, range: 5-165). The average age of patients was 77.4 years (SD: 8.1, median: 77, range: 65-102). 38.0% of patients had previous high ED use. In terms of comorbidities, 21.4% of patients had congestive heart failure, 13.2% had chronic obstructive pulmonary disease, 36.5% had diabetes, 21.0% had cancer, and 26.6% had renal failure. In terms of severity of visits, 83.9% were triaged as CTAS 1 to 3, with the majority being CTAS 3 (58.3%). Regarding hospitalizations, 2835 patients were admitted, averaging 2.6 admissions per patient (SD: 1.65, median: 2, range: 1-14). Finally, 98.8% of the patients had a primary care physician.

Conclusion: The prevalence of comorbidities amongst older adult patients signifies the importance of improving community health care services to address their specific needs and reduce potentially avoidable ED visits. These findings highlight the need for accessible community health care options.

B5.2 - Why relevant patient-reported experience measure (PREM) data matters to policy: Development of a PREM for integrated home and community care in Ontario, Canada

Presented by: [Valentina Cardozo](#)

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Background and Objectives: Patient Reported Experience Measures (PREMs) are critical for assessing system improvements according to the Quadruple Aim and health equity. Existing PREMs do not provide meaningful evaluation data for the unique context of home and community care, as they are predominantly focused on experiences relevant to hospital or primary-care settings. We developed and tested a new PREM for integrated home and community care, with a goal to improve evidence-informed decision-making involving this essential care sector.

Approach: Working as embedded researchers and guided by Streiner et al.'s (2015) survey design methods we: 1) determined key domains and relevant item-concepts from the literature, existing PREMs, and interviews with home care leaders (n=6); 2) engaged home and community care clients and caregivers (n=17), and providers (n=15) in content and face validity testing of the item pool through online focus groups and interviews; 3) scaled the PREM items and re-engaged clients and caregivers in cognitive testing through online interviews (n=11); and 4) conducted further reliability and validity testing using pilot data from clients who completed the PREM by phone (n=184).

Results: The literature-based PREM prototype consisted of 3 domains, 14 categories and 72 item-concepts. Through engagement of diverse experts-by-experience (e.g., leaders, clients, caregivers, care providers) item-concepts and domains were amended to increase face and content validity, resulting in 4 domains, 16 categories, and 37 items. Cognitive interviewing yielded further improvements, correcting ambiguous language, double-barreled questions, and poor question-stem-scale matching. Preliminary reliability testing shows proposed domains have excellent internal consistency ($0.91 \leq \alpha \leq 0.95$) and demonstrated consistent performance ($0.65 \leq \text{ICC} (2, 1) \leq 0.74$) with Ontario home care clients. At the time of the conference, Exploratory Factor Analysis and hypothesis testing results will be available regarding PREM validity. We anticipate sharing the PREM with recommendations for implementing a valid and reliable PREM in integrated home and community care programs across Canada.

Conclusion: As policy arguments continue to emphasize the need for increased system capacity to respond to the growing care demands of an aging population on the health care system, valid and reliable PREM data is essential to realizing transformative change that includes equitable, person-centred and relationship-based holistic home and community care.

B5.3 - Enhancing Surveying Flexibility and Improved Data Capture by Modernizing the Canadian Patient Experiences Survey on Inpatient Care (CPES-IC): Results from the pilot study.

Presented by: Kristen Hart

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Background and Objectives: The CPES-IC is a standardized survey developed by CIHI to collect patient feedback about care they received in hospital in three service areas - Medical, Surgical and Maternity. The current survey consists of 23 patient experience measures (M) which help hospitals target quality improvement efforts. In response to survey users' needs for more surveying flexibility, the existing base survey (48 questions) was modernized into two versions, full 20M (41 questions) and subset 6M (22 questions).

Approach: Several questions were added and updated in the modernized surveys to better capture sociodemographic information (e.g., sex, gender, race) and improve questions on existing concepts. Cognitive testing informed updates to concepts. Pilot testing of the 6M/20M was conducted to validate and ensure that all questions were understood by respondents and consistent with the base. More than 8,000 patients participated from 3 jurisdictions via phone, mail and/or online. Descriptive statistics, polychoric correlation and Cronbach's alpha were used to validate and measure relationships and consistency between questions. The effect of survey version was tested through factor analysis and multinomial regression.

Results: Based on consultations with stakeholders and data analysis, admission information and internal coordination concepts were updated and sociodemographic questions were improved to align with new CIHI standards. Results demonstrated few significant differences between 6M/20M and base CPES-IC. Respondents of 6M/20M were more likely to rate their Overall physical and mental health higher compared to those responding to the base. An interaction was found between the 6M and medical patients in one jurisdiction only. No significant differences were found when comparing 6M and 20M at question level. Cronbach's alpha and factor analysis both confirm the consistency of measures. Missingness of indigenous and racialized questions in the modernized surveys, however, were relatively high and showed opportunities for improvement.

Conclusion: The new surveys will improve data capture and allow for pan-Canadian comparisons and benchmarking on the important aspects of patients' stay in hospital. Highlights of key findings and results, CPES-IC program and uptake of the new surveys by jurisdictions across Canada will be presented if selected.

B5.4 - Exploring Neighbourhood-Level Marginalization and Homecare Access for Older Adults in Ontario

Presented by: Amina Jabbar

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Background and Objectives: The impacts of marginalization in healthcare, in terms of poorer access, lower utilization, and worse outcomes, are well described. Canadian research related to marginalization specific to older adults, however, is lacking.

The Ontario Marginalization Index (ON-Marg) is a geographically-based data tool that describes marginalization as per four dimensions: residential instability, material deprivation, dependency, and ethnic concentration. The objective is to use ON-Marg to describe access to homecare among adults over 75 years of age.

Approach: We conducted a retrospective cohort study using the Resident Assessment Instrument-Home Care (RAI-HC) dataset merged with ON-Marg (2016). Our cohort included adults over 75 years of age who lived in community-based settings within Ontario in 2019; We chose 2019 due to data availability. Aggregated dissemination areas (ADAs) were the unit of analysis.

We performed multiple regression models that included covariates (age, sex, hospitalizations, Resource Intensity Weight (RIW)) and the four ON-Marg dimensions. Each ON-Marg dimension was divided into quintiles (1-5) with 1 and 5 representing the least and most marginalized, respectively. We created separate models for long-stay and short-stay homecare.

Results: At the neighbourhood-level, rates of access to long-stay homecare were higher by age ($\beta=0.01$, $p<0.001$), female sex ($\beta=0.001$, $p<0.001$), hospitalization ($\beta=0.002$, $p<0.001$), RIW ($\beta=0.03$, $p<0.001$), and in ADAs designated Deprivation Quintile 5 ($\beta=0.016$, $p<0.001$), Ethnic Concentration Quintile 4 ($\beta=0.02$, $p<0.001$), and Ethnic Concentration Quintile 5 ($\beta=0.03$, $p<0.001$). Only ADAs designated as Dependency Quintile 2 ($\beta= -0.01$, $p=0.01$) and Dependency Quintile 5 ($\beta= -0.01$, $p=0.03$) showed lower rates of access to long-stay homecare.

Rates of access to short-stay homecare were higher by age ($\beta=0.005$, $p<0.001$) and hospitalization ($\beta=0.002$, $p<0.001$). ADAs designated as Ethnic Concentration Quintile 4 ($\beta= -0.01$, $p<0.001$) and Ethnic Concentration Quintile 5 ($\beta= -0.02$, $p<0.001$) showed lower rates of access to short-stay homecare.

Conclusion: While there are differences, rates of access to homecare in Ontario among adults over 75 years of age were not dramatically affected by neighbourhood-level marginalization in 2019. Future analyses will explore amount and provision of homecare by neighbourhood-level marginalization. These findings will have implications for resource allocation for publicly-funded care.

B5.5 - The Terminal Diner: A participatory design installation exploring continuity for end-of-life health care

Presented by: Aria Wills

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Background and Objectives: Continuity of care (CoC) entails healthcare experienced as connected and consistent with patients' medical and personal needs. Current measures of CoC remain underdeveloped, however are integral in understanding quality of end-of-life care. Our overarching aim is to identify aspects of end-of-life care that enhance CoC for incorporation into future care models. Within a mixed-methods sequential explanatory study, we have co-designed a public consultation via participatory design installation to elucidate individuals' actual and ideal end-of-life experiences.

Approach: We employed a design-driven research-to-public feedback loop to disseminate findings of a population-level cohort study to the general public. Using a co-design process with design researchers and people with lived experience, we developed a participatory design installation through which the general public can reflect upon the research findings and share their experiences. Stages of installation development included collaborative discussion and decision-making regarding: contemplation of quantitative findings and selection of the research problem and installation aim; development of design principles; and iterative concept and aesthetic ideation, selection, and refinement. Installation viewers' contributions will inform the design of subsequent qualitative research.

Results: We developed "The Terminal Diner", an installation exploring end-of-life healthcare experiences, to be featured across Ontario. Borrowing characteristics of a diner, the installation invites the general public to complete "orders" for their own ideal, projected end-of-life experience. Participants can also leave "reviews" of past experiences, capturing their lived experience of a loved one's end-of-life care. Order and review "chits" detail potential end-of-life options, including healthcare providers, locations of care and death, support systems, care settings, and emotional experiences. Participants can place their "orders" by attaching completed "chits" to the installation. The installation also displays three completed "reviews" sharing end-of-life patterns of care in Ontario informed by previous quantitative findings, and invites the submission of contact information via QR code for participation in subsequent qualitative research.

Conclusion: Our installation translates quantitative findings for public engagement, and will guide qualitative exploration of CoC at end of life. Synthesized findings will support the development of a theory of end-of-life CoC to enhance patient and healthcare outcomes. Our team is also interested in displaying the installation at CAHSPR.

B6.1 - Addressing the HHR Crisis in Hospitals through Innovative Interprofessional Team-Based Models of Care

Presented by: Shannon Sibbald

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Background and Objectives: Interprofessional team-based models of care (MOC) are a potentially vital strategy for increasing health human resource (HHR) capacity and improving patient outcomes. Given the “crisis” in Canadian HHR, understanding the role MOC play in building workforce capacity becomes increasingly important. We aim to identify best practices across pan-Canadian MOC in hospitals, with a specific aim to understand how interprofessional team-based care may impact HHR.

Approach: We will conduct a multi-method case study using a rapid literature search and a parallel environmental scan. Qualitative interviews will be conducted with key informants from exemplar cases to capture experiences with development, key components, barriers and facilitators, and implementation/sustainability of the team-based MOC. Where necessary, document analysis will be conducted to supplement case data. Moreover, we are creating short case studies and team-based MOC archetypes to consolidate common characteristics of models determined successful according to current HHR needs.

Results: Preliminary data shows an absence of a standardized definition for team-based/MOC, and a parallel heterogeneity of models used across Canada. Context has been identified as a strong factor in shaping MOC function and outcomes; for example, patient needs and availability of resources play a role in each model’s success. Given the diversity of contexts across healthcare and the absence of a standardized MOC definition, many models are currently unscalable and struggle to sustainably address both patient and workforce needs. Moreover, preliminary data suggests that, while there appears significant research conducted on the benefits of interprofessional team-based MOC in primary care contexts and with a focus on patient outcomes, research with a hospital setting and workforce population are less common.

Conclusion: Our work aims to bridge gaps in the literature while acknowledging the inherent complexity of the subject matter. This study will be used to create recommendations for implementing MOC which will inform future planning for health services delivery in hospitals and increase health human resource capacity.

B6.2 - Engagement is a Leading Practice in Health Workforce Planning

Presented by: Sarah Simkin

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Author Affiliations: ¹Ontario Health Toronto, ²Canadian Health Workforce Network, ³University of Ottawa, ⁴University of Toronto, ⁵Logical Outcomes

Background and Objectives: Workforce planning ensures that the health workforce is aligned with current and future needs of the population. Planning has social, political, and technical dimensions, and requires engagement to be successful. However, embedding engagement into planning processes can be challenging, thus often ignored, so guidance for planners and leaders is needed. The goal of this study was to systematically explore the considerations and processes involved in integrating engagement into workforce planning at the local level.

Approach: We present a qualitative case study of primary care planning in Toronto to address why engagement is necessary, how engagement can be integrated into planning, and how lessons from engagement may be useful for spread and scale of effective workforce planning. Using an action-oriented research approach, we consulted with Ontario Health Teams (OHTs - groups of providers and organizations that are clinically and fiscally accountable for delivering a full and coordinated continuum of care to a defined population), and recruited selected OHTs for in-depth engagement and support. We examine issues, considerations, and learnings arising from these OHT engagement activities.

Results: Engagement began with an introductory overview workshop followed by in-depth consultations (initial 2-hour sessions and optional follow-up sessions) with five Toronto-area OHTs between September 2023 and February 2024. While data analysis is still in progress, preliminary results indicate varying degrees of readiness for planning and different priorities and needs based on the unique characteristics of local populations. Across all OHTs, barriers to data access create challenges in being able to quantify patients' needs and plan effectively and there is an appetite for collective advocacy for more and better data and infrastructure to support planning at a local scale. Insights from these engagement sessions inform the refinement of tools and resources targeted to building local capacity for planning and advancement of a regional planning strategy.

Conclusion: Planning should not be a one-size fits all approach. Systematically examining the engagement activities, processes, and issues in primary care planning at a local level enables the discovery of broader considerations for enhancing the depth of planning within organizations (scale) and the breadth of planning across the health system (spread).

B6.3 - A Modern Data Architecture for Health Workforce Planning in Canada

Presented by: Sarah Simkin & Dax Bourcier

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Background and Objectives: An optimized health workforce that can sustainably deliver high quality care to patients where and when they need it is necessary for an effective response to diverse health system challenges. To achieve this, an infrastructure for health workforce planning is urgently needed. The goal of this study was to conceptualize a data architecture that supports health workforce planning and data-driven decision-making in order to improve and sustain public health care delivery in Canada.

Approach: We conducted an environmental scan to identify current challenges with Canadian health workforce data and planning, leading international and local practices, principles, standards, and guidelines with respect to data and planning, and extant recommendations for remediation of health workforce issues. We then undertook the development of a data architecture for planning that responds to and accommodates the issues we identified. We sought input from experts to inform the technical, legal, and planning specifications of the data architecture. Finally, we conducted a conceptual analysis of the ability of the system to address an array of planning questions.

Results: We propose and visualise an interlinked data architecture for the collection, management, and use of health data for the purpose of health workforce planning. During the delivery of health care, core data elements are generated, collected and undergo data integration processes (Extract, Transform, and Load) including transformations using fit-for-purpose interdisciplinary minimum data standards. Data then flow through a data pipeline into a pan-Canadian health data repository equipped with automatic processes to integrate, schematize, secure, aggregate, and format to enable real-time data querying and analysis. A data application for health workforce planning makes data accessible according to user permissions and needs. As envisaged, the data architecture would support a wide range of workforce planning and health system decision-making activities and stakeholders.

Conclusion: This modern data architecture for health workforce planning addresses current limitations pertaining to health workforce data and planning in Canada. By leveraging linked technologies, health administrators, health care providers and patients can be empowered to make more informed decisions that improve and sustain public health care in Canada.

B6.4 - Public Health Workforce Burnout: A Canadian Cross-Sectional Study

Presented by: Japteg Singh

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Background and Objectives: As a result of the COVID-19 pandemic, there has been increased interest in exploring workforce burnout, however, few studies have attempted to explore burnout among the Canadian public health workforce. High rates of burnout have been observed in public health workforces outside of Canada. This study presents the prevalence of burnout among the Canadian public health workforce surveyed after three years of the COVID-19 pandemic and explores potential associations between burnout with work-related factors.

Approach: We collected data using an online survey distributed in English and French through Canadian public health associations and professional networks between November 2022 and January 2023. We measured burnout through a modified version of the Oldenburg Burnout Inventory and reported findings descriptively. Logistic regressions were used to model the relationship between burnout and work-related factors including years of work experience, redeployment to pandemic response, workplace safety and supports, and harassment. Burnout and intentions to leave or retire because of the COVID-19 pandemic were explored using multinomial logistic regressions. Open-text responses were analyzed for themes to provide greater context.

Results: In total 2,079 participants completed the survey, 78.7% met the criteria for burnout, 49.1% reported being threatened, assaulted, or bullied during the pandemic, 65.7% felt safe at the workplace, and 61.4% received workplace supports. Burnout was positively associated with years of work experience, redeployment to the pandemic response, being harassed during the pandemic, feeling unsafe in the workplace, and not being offered workplace supports. Furthermore, burnout was associated with greater odds of intending to leave public health or retire earlier than anticipated. Respondents reported being harassed because of public health mandates and lack of vaccine availability. Barriers to workplace safety included harassment from the public, lack of support from management, increased workload, poor training, and risk of COVID-19 exposure.

Conclusion: The Canadian public health workforce faces high burnout levels. Our results emphasize the need for public health organizations to prioritize workplace supports and safety to mitigate burnout. Future work should seek to systematically enumerate the public health workforce and identify interventions to prevent, mitigate, and recover from burnout.

B6.5 - Understanding the Impact of Task Shifting and Skill Mix Interventions in Primary Care: Preliminary results from a realist review

Presented by: Jane Zhao

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Background and Objectives: Countries globally face a growing health human resource crisis in primary care. Task shifting and skill mix are two inter-related strategies that have been implemented to alleviate the health human resource crisis. Both interventions involve changing or expanding clinical roles, ultimately optimizing the current workforce. This realist synthesis of a systematic review aims to understand how and why task shifting and skill mix interventions are successful in primary care, with a focus on high-income countries.

Approach: A realist review is a theory-driven interpretive approach to studying complex interventions. The guiding research question is “what works for whom, in what circumstances, in what respects and how?”

Pawson summarizes five steps of a realist review: 1) an initial program theory was developed; 2) a search strategy was developed and searched for the evidence; 3) documents were screened, selected, and appraised; 4) data was extracted and organized into tables; 5) data was then analyzed and synthesized into a Context-Mechanism-Outcome (CMO) configuration, refining the initial program theory.

RAMESES guidelines for realist reviews were followed. All titles and abstracts were double-reviewed.

Results: An initial search identified a total of 788 papers. All titles and abstracts were screened and included articles were extracted and coded into CMO configurations. Twenty papers are synthesized in our preliminary results. Studies varied in geography from the Netherlands to the USA, Germany, and Australia. Almost all papers involved changes to physician roles and scope, either moving work to nurses or pharmacists.

We found strong evidence that multidisciplinary teams were associated with effective task shifting or skill mix implementation. When task shifting and skill mix interventions were implemented within existing primary care teams (Context), members of the multidisciplinary team gain greater understanding of each other's roles and scopes (Mechanism), resulting in increased members of the team practicing to full or expanded scope (Outcome).

Conclusion: Our realist review highlights the complexity behind tackling health human resource challenges in primary care. Multidisciplinary teams are a central mechanism by which task shifting and skill mix interventions are effective. This study is the first of its kind and offers international insights into health human resource planning and development.

B7.1 - Managing Conversations: A Care Aide Strategy to Prevent Missed Care **Presented by: Cybele Angel**

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Background and Objectives: In Canada and internationally, missed care or tasks that are delayed or left undone are pervasive in long-term care (LTC) homes. This Western Canadian qualitative study, part of the Translating Research in Elder Care (TREC) research program, aims to understand how and why missed care occurs among LTC healthcare aides and to co-design solutions to reduce missed care.

Approach: These results are from Phase 1 of a larger qualitative study on Missed Care. We conducted 48 individual semi-structured interviews with healthcare aides to understand how and why Missed Care occurs in LTC homes. Interview participants were randomly recruited from 8 LTC units in Alberta and British Columbia from June 2023 through March 2024. These units were selected based on a matrix of differing levels of missed care and favourable work environments using purposive stratified sampling. A single researcher conducted all the interviews and did the primary concurrent analysis. Data analysis was conducted using an interpretive description framework.

Results: Analysis from 48 interviews identified that care aides regulate and manage conversations with LTC residents while giving care. Care aides noted that due to workload, conversations (social interactions) happened while a care task was being performed. Thus, conversations had to end when the care task was complete, meaning conversations had to be managed and constrained. Care aides expressed regret in not having the opportunity to sit and talk with residents. Care aides also reported the lack of quality time with residents was detrimental to resident's mental health and well-being. The analysis further identified that care tasks such as bathing, oral care and toileting take priority over the social connection and mental well-being of residents for care aides as tasks associated with missed care.

Conclusion: There is a disconnect between care task priorities at the organizational level and what care aides can provide during their shifts. These findings reveal that care aides tightly manage interactions with residents to meet care task priorities and reduce missed care in LTC homes.

B7.2 - Job Strain and Health among Long-term Care and Seniors' Home Workers during the COVID-19 Pandemic

Presented by: [Valentina Antonipillai](#)

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Background and Objectives: The COVID-19 pandemic revealed several challenges faced by health care workers in long-term care and seniors' (LTCS) homes, including staff shortages and high levels of burnout in Canada. Given declines in health care workers' health status during the pandemic and exposure to poor working conditions over time, this study examines job strain prevalence during the pandemic and its associations with health among nurses and personal support workers (PSWs) in Canada's LTCS homes.

Approach: This cross-sectional study used data from Statistics Canada's Survey on Health Care Workers Experiences During the Pandemic (2021) collected from nurses and PSWs in LTCS homes (n=1962). Job strain, conceptualized using Karasek's 1979 Job Strain Model, includes two key components: workload intensity (workload increases and overtime work) and job control (engaging in unexpected work). Outcomes of interest were workers' perceived changes in general and mental health since the onset of the pandemic. Multivariable logistic regression models were conducted for each outcome, stratified by occupation, and controlled for several covariates, including age, gender, immigration status, income level, and work precarity.

Results: The prevalence of job strain during the pandemic was high, with over 80% of health care workers reporting at least one job strain indicator, such as increased workloads, hours of work, or unexpected work. Consistently, more nurses reported experiencing these forms of job strain compared to PSWs. A higher proportion of nurses experienced worsened general and mental health during the pandemic, compared to PSWs. Worsened general health during the pandemic was associated with increased workloads and working overtime for health care workers. While increased workloads were also associated with worsened mental health, working overtime was not. For nurses, unexpected workloads were associated with worsened general and mental health. Among PSWs, unexpected tasks were associated with worsened mental health, but not worsened general health.

Conclusion: Associations between different job strain indicators and worsened health vary by occupation, among nurses and PSWs. Differing roles, expectations, regulations, and experiences during and before the pandemic may contribute to variations in job strain and worsened health among nurses and PSWs in Canada's LTCS homes.

B7.3 - Identifying Factors Associated with Physician Assistance in Dying for Older Adults in Canada at the Canadian Longitudinal Study on Aging: A Cohort Study

Presented by: Komal Aryal

All Authors: *Lauren Griffith¹, Aaron Jones¹, Andrew Costa¹, Komal Aryal¹, Peter Tanuseputro²*

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Background and Objectives: Aging Canadians are experiencing chronic and terminal illnesses resulting in more physician-assisted deaths (PAD) in the country. This study aims to understand the differences between participants who considered a PAD but did not undergo the procedure and those who both considered and underwent a PAD.

Approach: We conducted a retrospective cohort study comparing all participants who considered a PAD and those who experienced PAD-related deaths between April 28, 2017, to February 26, 2022, and the Canadian Longitudinal Study on Aging (CLSA). Clinical and demographic characteristics were collected for all participants in the CLSA who died and had a completed decedent interview. We used logistic regression analyses to describe the association of demographic and clinical factors with consideration and reception of PAD.

Results: There were a total of 1,287 deceased participants with a completed decedent interview of which 183 considered PAD and 66 experienced PAD. In both groups, more participants were male, married, and died of cancer. Those who considered PAD, were more likely to be younger (OR 1.76, CI 1.14-2.67), die in hospice or palliative care (OR 1.72, CI 1.16-2.54), and use the ED once or more in the last year of life (OR 1.66, CI 1.02-2.65). For those who had a PAD, they were more likely to die at home (OR 2.35, CI 1.27-4.27), and less likely to not die in place and not experience peace with dying (OR 0.45, CI 0.23-0.81; OR 0.24, CI 0.06-0.66).

Conclusion: The findings suggest some incongruence between participants who consider PAD and the participants who experience PAD. Future studies need to examine barriers to PAD consideration and delivery to ensure older adults have a comfortable end-of-life experience.

B7.4 - Understanding Peace with Dying for Older Adults in Canada at the Canadian Longitudinal Study on Aging: A Cohort Study

Presented by: Komal Aryal

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Background and Objectives: As Canada's population ages, comprehensively understanding the quality of death and dying (QODD) becomes increasingly critical. We, therefore, conducted this study to provide a comprehensive description of whether older Canadian adults experience peace with dying.

Approach: We conducted a cohort study analyzing decedent data from the Canadian Longitudinal Study on Aging (CLSA) in Canada. The next of kin and proxies of deceased CLSA participants were interviewed and they reported on their End-of-Life (EoL) experiences of participants who died between April 2017 to February 2022. Respondents commented on the dying experiences of CLSA participants. We used logistic regression to identify the association between demographic and EoL characteristics in experiencing peace with dying.

Results: There were 3,672 total deceased participants at the CLSA and 1,287 had a completed decedent questionnaire. Most deceased CLSA participants were 75 years old or older, male, and married. Approximately, 66.0% of participants experienced peace with dying. Dying of cancer and having an appointed EoL decision-making power of attorney were associated with a peaceful death whereas, having your child as your EoL caregiver decreased the odds of experiencing peace with dying.

Conclusion: A majority of the deceased participants with a completed decedent interview experienced peace with dying. By understanding these complex EoL characteristics these findings inform palliative care planning for older adults which can enhance the quality of EoL care and support for older adults in Canada.

B7.5 - Changing the narratives in long-term care: Addressing the root causes of burnout and mental distress among healthcare workers and fostering positive growth within the sector

Presented by: Sheila Boamah

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Background and Objectives: As COVID-19 fades from public consciousness, there is a growing necessity to direct increased attention towards tackling the persistent challenges encountered by healthcare workers (HCWs) in long-term care (LTC). Evidence indicates that staffing shortages have exacerbated, with over 86% of Canadian LTC homes reporting at least one staffing-related challenge in 2020. The study aims to investigate system-wide, organization-level, and personal factors contributing to mental distress/burnout among HCWs, and strategies for supporting a healthier/resilient LTC workforce.

Approach: A participatory, co-design approach was implemented involving diverse groups of HCWs (personal support workers, nurses, LTC administrators), to delve into their firsthand experiences working in LTC homes. Four focus group sessions were conducted with 22 participants with diverse backgrounds and experiences. Data was digitally audio-recorded and transcribed verbatim for analysis. An iterative process was used to generate codes from transcripts and a final thematic framework was developed, providing a comprehensive and reliable representation of the qualitative data analysis.

Results: Preliminary findings suggest a multitude of work-related and personal risk factors that hinder the mental health and well-being of HCWs in LTC, leading to burnout. These factors encompass system-wide (limited funding and health human resources), organization-level (workload management, training), and personal (stress, finances) factors associated with mental distress. Proposed strategies include improved work-life policies and access to mental health counselling services for HCWs. Discussions also emphasize the necessity for enhanced adoption and implementation of Psychosocial Health and Safety Measures in the Workplace. Furthermore, sufficient government funding is crucial to alleviate budgetary constraints that hinder the timely management of critical issues. Additionally, the establishment of coordinated and aligned guidelines by regulatory bodies will allow for more efficient delivery of care.

Conclusion: Outcomes indicate the necessity for a comprehensive approach to tackling increasing mental health challenges among HCWs in LTC. The study provides current data that is critical to informing new models for care delivery and interventions aimed at HCWs' overall well-being, considering inequities and impacts within the largely precariously employed workforce.

B8.1 - From Invisibility to Partnership: Revolutionizing Healthcare Systems for Family Caregivers

Presented by: Sharon Anderson

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Background and Objectives: Family caregivers play a pivotal role in care, providing 90% of care and serving as vital information conduits and care coordinators within fragmented healthcare systems. Recognizing their need for support and the importance of their inclusion in healthcare teams, we identified a gap in healthcare professionals' training in engaging caregivers. This gap underscored the need for improvement in integrated care.

Approach: Utilizing a co-design approach, we developed and evaluated Competency-based Foundational and Advanced Caregiver Centered Education for the Health Workforce to Engage and Support Family Caregivers. Co-design, a critical research approach, involved various stakeholders, including family caregivers, in shaping the education program. We anticipated that this approach and the resulting education program would shift the healthcare culture towards greater inclusion of family caregivers as partners in care.

Results: From November 2019 to December 2023, we co-designed and evaluated three education levels (Foundational, Advanced, and Champions) with input from interdisciplinary stakeholders, including family caregivers. We made the education modules available online. Over 6000 providers completed the Foundational education, 450 completed the Advanced Education, and 60 completed the Champions modules. Using the Kirkpatrick Barr Healthcare Education Evaluation Framework (Levels 1-3), statistical analysis revealed significant improvements in participants' knowledge and skills for working with family caregivers, even among those with high pre-test ratings. Qualitatively, participants reported increased responsiveness to caregivers and greater engagement in assessing their needs.

Conclusion: Caregiver-Centered Care education is crucial to healthcare culture and acknowledging family caregivers as essential partners on care teams. The co-design process ensured multi-level stakeholders were involved. Recognizing and supporting caregivers is more essential than ever with the shortage of healthcare providers and the growing need for care in aging populations.

B8.2 - Interplay between 'Logic' and 'Politics' in Priority Population Selection for Integrated Care Network- An Exploratory Multiple-Case Study

Presented by: Priyanka Gayen

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Background and Objectives: Collaborative decision-making in integrated care involves a shift from agency-centric to network-centric viewpoints, necessitating alignment among stakeholders on approaches for common goals by harmonizing "logic" (problem-solving, best choices, rule adherence) and "politics" (individual/organizational priorities, negotiation). Using Ontario Health Teams (OHTs), Ontario, Canada's integrated care initiative, as a case example, this study sought to uncover "logical" and "political" factors shaping OHTs' priority population selection and to understand how OHTs balanced these elements in decision-making.

Approach: Employing an exploratory multiple-case design, the study examines two OHTs selected for their contrasting priority populations while sharing similar geography, total population targets, and leadership team sizes. Six interviews per OHT, involving individuals in senior leadership positions during the OHT application development phase, provide insights. Thematic analysis guides data interpretation.

Results: Results indicate varying emphasis on logical and political factors during decision-making by the two OHTs. Key logical factors identified include data-driven population needs, OHT application directives, learning from previous experience, potential for system-level savings, and perceived health system/government priority. Political factors encompass feasibility (potential impact, population identifiability, future funding prospects), stakeholder interest, and power dynamics in partnerships. OHT A emphasized political factors, including feasibility issues (population identification, impact demonstration potential, partner interest and competency), reflecting limited understanding of and information on integrated care models. Conversely, OHT B focused on evidence-informed priority populations, previous experience, and the OHT's strategic vision (leaning more toward logic). The varying degree of emphasis on logical and political factors may have contributed to the distinct choices of the OHTs in decision-making.

Conclusion: While challenging, it is critical for integrated care stakeholders to self-reflect on their decision-making strategy with the aim of achieving a balanced approach that considers evidence, interests, and feasibility to make decisions that are in the best interest of the network.

B8.3 - Exploring health system integration across public health and primary care programs in Alberta

Presented by: Kimberly Manalili

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Background and Objectives: Integrated health systems are critical for attaining seamless, continuous, high quality of care for patients. Integration of health services is particularly important to support patients with their health promotion goals and prevent disease. While both provincial public health and primary care play key roles in promotion and prevention, complex challenges hinder integration efforts. We aim to explore opportunities to facilitate integration across public health and primary care for health promotion and prevention initiatives in Alberta.

Approach: The study aim will be achieved through a multi-method design, applying an implementation science and systems thinking approach through the following objectives:

1. An environmental scan to examine the landscape of public health and primary care collaborations internationally.
2. Qualitative interviews with public health and primary care leadership and staff, and patients to identify policy, system, and individual-level barriers, facilitators, and strategies for integrating efforts in Alberta.
3. Based on Objectives 1 and 2, we will conduct a consensus workshop with public health and primary care leaders, healthcare providers, and patients to co-design solutions towards health system integration in Alberta.

Results: This study is in progress, with Objectives 1 and 2 underway. Preliminary findings from Objective 1 include the identification of 72 initiatives across 16 countries, with two multi-country initiatives. System-level (macro) initiatives (e.g., pandemic response or national service coordination) accounted for 27% of initiatives. Organizational-level (meso) initiatives comprised 24% of initiatives (e.g., interdisciplinary care teams). Patient-provider-level (micro) initiatives were described in 49% of initiatives, including integrated behavioral health initiatives (e.g., health promotion education). Examples of key factors influencing implementation of integration identified from Objective 1 and preliminary discussions with health system leadership and patients included: financial compensation/reimbursement for integrated models, development of governance and organizational structures, digital innovations for data coordination, quality of relationships/partnerships, clarity around organizational and provider roles and responsibilities, and available resources.

Conclusion: This project aligns with ongoing provincial initiatives to improve patient experiences and outcomes through enhanced care coordination and addressing the upstream determinants of health in the community. This project will provide practical, evidence-based, and stakeholder informed guidance for strengthening integration efforts between public health and primary care organizations in Alberta.

B8.4 - Building resilient primary care systems through the implementation of meso-level governance for integrated care

Presented by: Julie Farmer

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Background and Objectives: A key policy priority is the development of a seamless patient journeys through the continuum of health services through integrated care system reform. In this study, we learn from recent reforms in Canada and internationally (i.e. Australia and the United Kingdom) to strengthen primary care engagement in the implementation of integrated systems reforms, to gain insights from the implementation barriers and enablers at multiple levels of the system to develop implementation support programs.

Approach: We conducted a rapid jurisdictional review (Winter 2023) across five Canadian provinces (British Columbia, Alberta, Manitoba, Ontario, and Nova Scotia) and two international comparators (Australia and United Kingdom). We drew from academic and grey literature about primary care delivery models and recent system reforms impacting primary care (e.g., integrated systems). We mapped our results against a conceptual framework about the sub-functions of primary care to draw out similarities, differences, innovative or promising reforms. We will convene a policy dialogue (Winter 2024) with local experts to discuss our findings and to learn about enabling factors for the implementation of integrated systems.

Results: Primary care reform is ongoing across jurisdictions with a more recent focus on refining team-based interprofessional care and/or strengthening care pathways between physician practices and other providers/community clinics. Formal and informal studies of these reforms underscore the challenge in maintaining strong relationships between governments (payers) and primary care providers to achieve system objectives. There are notable trends related to financing and governance that may facilitate primary care reform. First, a shift away from fee-for-service (FFS) payment models toward alternative payment plans (e.g., blended capitation with some targeted incentives, a variant of pay for performance targeted at physician practice). Second, supporting collaborative approaches to primary care reform that emphasise GP buy-in and voluntary participation in new contractual models rather than a 'command and control' model.

Conclusion: Primary care reform initiatives that shift financing away from FFS remuneration and pursue integrated care through voluntary collaboration/interprofessional teams are widely supported by GPs. Our results demonstrate that further research is needed about the interrelationship between primary care providers and other local community organizations responsible for implementing integrated care systems.

B8.5 - Good collaborative governance can contribute to the effectiveness of integrated health and social care networks

Presented by: Paul Wankah

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Background and Objectives: In 2019, the government of Ontario introduced Ontario Health Teams (OHT) to foster collaborations between health/social care organizations. OHTs enacted collaborative governance (the way interorganizational networks organize to make key decisions) of their networks by choosing representatives of member organizations to form a joint governance committee consisting of individuals who constitute the primary decision-making group for each OHT. This study aimed to examine key aspects of collaborative governance that influenced the effectiveness of inter-organizational networks.

Approach: In March 2022, an organizational survey was conducted to capture the views of 387 governance committee members (across 51 OHTs) on factors influencing the effectiveness of their OHTs. The survey was constructed using the Context and Capabilities Framework for Integrated Care (Evans et al. 2016) - a validated questionnaire that highlighted factors (e.g., level of trust, supportive leadership, or shared vision) that are most important to the implementation of integrated care networks. A multilevel analysis approach was used for data analysis. We identified key features of joint governance committees that were significantly ($p < 0.5$) associated with perceived OHT effectiveness.

Results: Statistical models show a positive association between the outcome of perceived OHT effectiveness and the following co-variates: team climate, readiness to change, administration and management, commitment to improvement, availability of financial resources, shared vision and supportive leadership. Other factors including non-financial resources, team size, level of trust, and roles and responsibilities were not statistically significantly related to the OHT effectiveness measure.

Conclusion: Good collaborative governance is a critical component of effective integrated care networks. Relational factors such as shared vision of joint governance committee members, supportive leadership and team climate may be key to successful collaborative governance. These results inform areas for support for the design/implementation of effective integrated care networks.

C1.1 - Inequities in chronic disease management among people treated for serious mental illness: Analysis of population-based data in British Columbia

Presented by: Ruth Lavergne

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Background and Objectives: People with serious mental illness (SMI) have poor health outcomes, in part because of inequitable access to quality health services. While people with SMI are at higher risk for several chronic conditions, they may experience poorer access to chronic disease management. We examine how management of diabetes and hypertension differs among people treated for SMI, people treated for other mental health conditions, and the general population.

Approach: We used linked administrative health data in the province of British Columbia to identify adults (ages 20+) treated for hypertension and/or diabetes (based on outpatient and inpatients service use). Within this cohort, we identified people treated for schizophrenia spectrum or bipolar disorders (SMI), or other mental illnesses, and further grouped them into people hospitalized and people treated in the community only in a two-year look-back from 2021/2. We compared primary care service use (visit counts, reasons for visits, and continuity) and chronic disease management (laboratory testing and prescribing) across these groups.

Results: Among 851,642 adults treated for diabetes and/or hypertension, 1,772 (0.2%) were hospitalized and 11,768 (1.4%) treated in the community for SMI, while 2,685 (0.3%) were hospitalized and 117,274 (13.8%) treated in the community for other mental illness. People treated for mental illness received more outpatient visits with primary care providers on average (ranging from 12.3-14.8), compared to people not treated for mental illness (8.8). However, they received lower continuity of care and were less likely to have premiums for chronic disease management billed on their behalf. People treated for mental illness, and particularly SMI, were less likely to receive recommended laboratory monitoring across all tests examined.

Conclusion: Despite frequent contact with primary care providers, people treated for mental illness, and especially people treated for SMI, are not receiving chronic disease management. Findings suggest a need for expanded access to models of primary care equipped to support comprehensive care for people with serious mental illness.

C1.2 - System-Based Interventions to Address Physician Burnout: A Qualitative Study of Canadian Family Physicians' Experiences During the COVID-19 Pandemic

Presented by: Maria Mathews

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Background and Objectives: Medical professionals experienced high rates of burnout and moral distress during the COVID-19 pandemic. In Canada, burnout has been linked to the growing number of family physicians (FPs) leaving the workforce, increasing the number of patients without access to a regular doctor. This study explores the different factors that impacted FPs' experience with burnout and moral distress during the pandemic, with the goal of identifying system-based interventions aimed at supporting FP well-being and improving retention.

Approach: We conducted semi-structured qualitative interviews with FPs across four health regions in Canada: the Vancouver Coastal health region in British Columbia, the Eastern Health region of Newfoundland and Labrador, the province of Nova Scotia (which only has one health region), and the Ontario Health West region in Ontario. We asked participants about the roles they assumed during different stages of the pandemic, and they were encouraged (through probes) to describe their well-being, including relevant supports and barriers. We used thematic analysis to examine themes relating to FP mental health and well-being.

Results: We interviewed 68 FPs across the four health regions. We identified two overarching themes related to moral distress and burnout: (1) inability to provide appropriate care, and (2) system-related stressors and buffers of burnout. FPs expressed concern about the quality of care their patients were able to receive during the pandemic, citing instances where pandemic restrictions limited their ability to access critical preventative and diagnostic services. Participants also described four factors that alleviated or exacerbated feelings of burnout, including: (1) workload, (2) payment model, (3) locum coverage, and (4) team and peer support.

Conclusion: These findings highlight the importance of implementing system-wide interventions to improve FP well-being during public health emergencies. These could include expanding inter-professional team-based models of care, alternate remuneration models for primary care (i.e., non-fee-for-service), organized locum programs, and the availability of short-term insurance programs to cover fixed practice operating costs.

C1.3 - A Training Program for Community Health Navigators: Experiences from the Encompass study.

Presented by: Kerry McBrien

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Background and Objectives: Integration of non-medical providers in primary care delivery is increasingly common; however, description and best practices relating to training are limited. We developed a training program for Community Health Navigators (CHNs) to deliver services to patients with chronic health conditions as part of the ENhancing COMmunity health through Patient navigation, Advocacy and Social Support (ENCOMPASS) research program. This study describes the CHN training program, participants' perception of CHNs' training, and potential training gaps.

Approach: An evidence-based program theory was used to develop a comprehensive training program for CHNs. From 2018 to 2022, 32 CHNs were trained, and 422 adult patients with ≥ 2 of six chronic conditions were enrolled in ENCOMPASS trials across four Primary Care Networks (PCNs) in Alberta. Using a qualitative descriptive approach, we conducted semi-structured interviews and document review of patient encounter case notes to collect feedback on CHN training. We used thematic analysis to analyze the data and summarize perceptions about CHN training and potential gaps in knowledge or skills required to be successful in the CHN role.

Results: We conducted semi-structured interviews with patients (40), CHNs (18), program supervisors (3), healthcare providers (22), and organizational leaders (13). We also reviewed a subset of patient case notes (61). Our analysis revealed three key themes: 1) CHN confidence built from formal training and on-the-job experience; 2) CHN skills and training were perceived as strong and relevant; 3) Knowledge needs (mental health & boundaries) and skill gaps (documentation & communication). CHNs were satisfied with the training program and felt confident to provide navigation services. Patients, PCN, and clinic staff were also satisfied with CHN training; however, review of patient case notes revealed gaps in documentation. Suggestions for improvement emphasized training in boundaries, mental health awareness, communication with healthcare providers, and attention to effective documentation.

Conclusion: We investigated a training program for CHNs in a real-world setting. Our results affirmed the relevance of the training program and identified additional knowledge and skills needed to support CHNs in providing services to patients with chronic health conditions. These results will inform future training and refresher sessions.

C1.4 - Évaluation de la mise en œuvre d'un guichet d'accès aux investigations ambulatoires comme alternative à l'urgence : le cas de l'Accueil clinique au CHUM

Presented by: Kevin Mehanna

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Background and Objectives: La congestion des services d'urgence compromet la qualité et l'accessibilité des soins de santé pour la population. En réponse à cette situation et à la demande du MSSS, le CHUM a mis en place un Accueil clinique (ACC) dédié à la prise en charge des urgences non vitales. Cette étude vise à évaluer le déploiement du service en termes de facteurs facilitants/limitants, de gestion du changement, d'expérience, et d'impact sur la fluidité de la trajectoire du patient.

Approach: Nous avons mené une étude de cas longitudinale mixte (qualitative et quantitative) à trois niveaux d'analyse (projet, organisationnel, clinique) couvrant la mise en place de l'ACC et sa première année de fonctionnement. Des entrevues ont été réalisées avec des acteurs impliqués (n=14) et avec certains patients bénéficiaires (n=10). Des questionnaires de satisfaction ont été envoyés aux patients et aux professionnels de la santé impliqués. Un journal de bord a également été rempli par le chercheur principal. Finalement, l'ensemble des documents produits pendant cette période ont été analysés. Une triangulation des données a été réalisée afin de mieux appréhender le processus à l'étude.

Results: La mise en place de l'ACC a été impulsée par l'exigence de répondre au rapport critique du MSSS sur la qualité de l'urgence du CHUM et aux besoins du terrain. Les facteurs facilitateurs comprennent le leadership, le soutien de la DG et la collaboration inter-direction. Les obstacles incluent la complexité administrative, le manque de ressources, la résistance au changement, la sous-estimation des besoins, les sollicitations ad-hoc et une documentation insuffisante. Les stratégies de gestion du changement comprennent la flexibilité, la simplification, la communication, une démarche qualité et la promotion. Les retours des patients sont majoritairement positifs (81%), mais des problèmes mineurs ont été identifiés. Les cliniciens sont mitigés sur la connaissance du dispositif (29%) et son impact sur la fluidité des trajectoires de soins (35%).

Conclusion: Les leçons tirées de cette étude soulignent l'importance d'une documentation précise des processus, d'une communication efficace, d'une allocation judicieuse des ressources pour faciliter la gestion du changement ainsi qu'un soutien clinique initial essentiel pour garantir des pratiques optimales et pérennes.

C1.5 - Co-designing and Piloting a Community Paramedic-Driven Food Insecurity Screening and Assessment Tool for High-Risk Older Adults in an Ontario Family Health Team

Presented by: Sarisha Philip

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Background and Objectives: Food insecurity, defined as unreliable access to adequate food, is associated with poor diet quality and chronic diseases. In 2014, an Ontario Family Health Team embedded a community paramedicine program into their practice to improve care for complex patients. The study aims to (1) examine current informal methods used by the Family Health Team to screen for food insecurity and (2) co-design, pilot test, and evaluate a food insecurity assessment tool for older adult patients.

Approach: In this qualitative study, we conducted 13 semi-structured interviews with staff from the Family Health Team to understand their different approaches to assessing food insecurity. The data were analyzed using reflexive thematic analysis, allowing for a deeper understanding of common causes of food insecurity in this older demographic. Additionally, we conducted an interactive workshop with the community paramedics to co-design a food insecurity screening and assessment tool. This involved considering the feasibility and appropriateness of existing tools to their role and patient roster. This tool is being pilot-tested and evaluated for a 6-month period ending in March 2024.

Results: Our interviews highlighted that community paramedics' in-home visits revealed critical insights into patients' food security status, such as signs like empty fridges and expired food. Our co-designed screening tool includes a home observational scan and three questions regarding patients' satisfaction with food quality, quantity, and accessibility. Positive screenings lead to an assessment of food intake, meal preparation capabilities, and access to support. Results from the food insecurity assessment tool mid-point evaluation reveal that screening creates opportunities for meaningful conversations with patients regarding food access. So far, of the 60 older patients screened, about half showed signs of cognitive impairment and depended on caregivers for food provision. Additionally, about 20% of these patients were previously or currently reliant on food assistance services.

Conclusion: Our tool is the first step to help systematically identify food-insecure older adults and enhance our understanding of the root causes of their food insecurity. Future steps include piloting the tool in other community paramedic services and adapting it for use by physicians, dietitians, and nurse practitioners in clinical environments.

C1.6 - Using concept mapping to inform longitudinal research on implementation and development of high-functioning Interprofessional Primary Healthcare Teams

Presented by: Pablo Galvez-Hernandez

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Background and Objectives: Interprofessional Team-Based Primary Healthcare is increasingly recognized as essential for enhancing health outcomes and equity among individuals with multiple complex health needs, and health professional's satisfaction. With an imperative to expand team-based primary healthcare models in Canada, research to identify strategies that accelerate the successful implementation and development of these teams is needed. We introduce a conceptual framework to facilitate the cross-disciplinary study of interprofessional primary healthcare team implementation and development.

Approach: The framework was informed by existing literature and developed through a participatory, multi-stage group concept mapping aligned with Novak and Cañas' (2007) methodology. Framework development involved several meetings throughout 2022 and 2023, engaging thirty-two researchers and policymakers in 6 steps: defining focus questions, identifying relevant concepts, constructing a preliminary framework, initial revision by the research team, identifying cross-links, and final framework revision. A total of 335 statements on 11 focus questions were generated. Three researchers iteratively examined the statements to identify conceptual similarities across workstreams and categorize them into larger domains subsequently validated by the larger research team.

Results: The resulting framework comprises six domains with 19 concepts related to structures, processes, and outcomes that may influence interprofessional primary healthcare teams' implementation and development. The Patient and community partnership and engagement domain captures structures and processes for engaging individuals, groups, and community partners in care activities. The Individual perspectives, values, and beliefs domain covers team members' beliefs impacting team dynamics. Team structure and organizational factors includes team composition, resources, leadership, and cultural-historical context. Team collaboration and communication captures internal and external collaboration and coordination structure and processes, including digital health. Aligning to needs captures how team structures and processes are aligned with the specific patient and community needs. Finally, Environmental context encompasses external elements like organizational ecosystems, policy, time, and funding.

Conclusion: The framework offers an initial cross-disciplinary understanding of interprofessional team-based primary healthcare. Researchers can use the framework as a tool for hypothesis development and data collection and analysis, facilitating theory-driven longitudinal evaluations. This initial framework can be iteratively refined based on empirical data derived from applications in real-world cases.

C2.1 - Falling out of place: an equity-focused characterization of concussion healthcare in Ontario

Presented by: Arman Ali

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Background and Objectives: Concussion treatment in Ontario is provided through a combination of public and third-party funded care determined by cause of injury; those injured by falls are typically restricted to publicly or self-funded care. Consequently, equity-deserving groups are disproportionately affected, impacting care access and recovery. Little research exists to describe the landscape of concussion care in Ontario with equity and funding-source lens. Here, we characterize concussion in Ontario and identify inequities related to healthcare utilization

Approach: Ontario residents with a formal mild traumatic brain injury (mTBI)/concussion diagnosis between 2016 to 2022 were identified and tracked using publicly available healthcare administrative databases (e.g., Discharge Abstract Database, National Ambulatory Care Reporting System, Ontario Health Insurance Plan, and National Rehabilitation Reporting System) to create a master cohort. Incidence rates and healthcare utilization (e.g., emergency department (ED) visits) were calculated, and data were stratified by key factors known to influence health outcomes (age, sex, income, rurality, region, presence of pre-existing mental health and/or cognitive comorbidities, and mechanism of injury). Healthcare utilization was reported per 100 person years (100 PY).

Results: 1,075,791 new cases of mTBI/concussion were identified in Ontario. Nearly 30% of people were injured by falling, while sport-related injuries and motor vehicle collision comprised just 5% and 3% of all concussions respectively. The ED visit rate for the first two years post-concussion was considerably higher in people aged 65-79 (101 visits per 100 PY) and 80+ (139.8 visits per 100 PY) compared to the overall provincial rate (79.3 visits per 100 PY). Those in rural or Northern areas, the lowest income quintile, with pre-existing cognitive comorbidities, and who were injured by falling had higher ED visit rates compared to the overall rate. The most utilized resource among people with concussion in the years following their injury was mental health-related care (95.8 per 100 PY).

Conclusion: Most mTBI/concussions are caused by falls, injuries unlikely to be covered by insurance-funded healthcare. Concussions occur frequently among older adults and people with cognitive comorbidities, often resulting in long-lasting physical and mental health consequences. Policies promoting fall prevention efforts should be targeted toward these subgroups to decrease health system usage.

C2.2 - REFUGEE HEALTH PROJECT - EMPOWERING REFUGEE HEALTH PROFESSIONALS WITH THE RIGHT INFORMATION

Presented by: Saida Fathima Azam

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Background and Objectives: The Refugee Health Project addresses the challenges refugee healthcare professionals face in obtaining Canadian licensure and employment. With a focus on education and training, the project aims to assist internationally educated health professionals in navigating the Canadian healthcare system, enhancing their integration and contribution to the workforce. The emphasis is placed on exploring effective pathways and support systems that facilitate this integration, ensuring that these skilled individuals can effectively contribute to healthcare in Canada.

Approach: Our primary focus was on analyzing existing licensure pathways for refugee healthcare professionals in Canada. This analysis informed the development of a supportive platform, offering crucial information, mentorship, and networking opportunities. Additionally, to enhance the user experience and access to resources, we emphasized the development of an interactive website. The site, backed by funding from the Canadian Medical Foundation, offers up-to-date licensing information, simplifying navigation. This website was designed with user-friendly navigation and included features like personalized guidance, real-time updates on licensure processes, and a forum for community support and professional exchange.

Results: We successfully developed an interactive website, www.InternationalHealthProfessionals.ca, specifically tailored for refugee healthcare professionals, initially focusing on physicians and nurses. This platform stands as a comprehensive guide, simplifying the intricacies of licensure and employment processes in the healthcare sector. It provides users with personalized navigation and access to an array of resources, enhancing their journey towards professional integration in Canada.

Our approach to developing this platform was grounded in rigorous data collection and feedback mechanisms. In addition to conducting a grey literature search for relevant information, we also engaged in extensive interviews and Zoom sessions with Internationally Educated Health Professionals (IEHPs) from various regions across Canada. Meetings with academics, licensing bodies, professional associations, and settlement agencies played a crucial role in gathering diverse perspectives and insights.

Conclusion: We developed a critical resource that simplifies the licensure process and improves employment prospects by creating a user-centric website. Plans are underway to expand the website's scope to encompass other health professions, thereby broadening our impact on the healthcare community and further supporting the integration of refugees.

Project link: <https://bit.ly/IEHPSPROJECT>

C2.3 - Exploring the realities of intimate partner violence (IPV) Survivors and Service Providers from Pandemic Crisis to Recovery

Presented by: Dina Idriss-Wheeler

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Background and Objectives: Though effective in mitigating infectious disease transmission, COVID-19 pandemic lockdowns inadvertently triggered a cascade of socioeconomic and psychosocial challenges. This included job displacement, increased familial strain, reduced service accessibility, increased caregiving burdens on women, and a stark rise in intimate partner violence (IPV). This study investigated the provision and accessibility of health and social services from perspectives of both IPV survivors and violence against women (VAW) service providers in Ontario, from lockdowns to post-pandemic recovery.

Approach: A convergent mixed-methods approach incorporated i) qualitative (QUAL) data from semi-structured interviews with VAW service providers (n=10) and IPV survivors (n=14) and ii) quantitative (QUANT) data from a survey targeting 1100 Ontarians. QUAL data were thematically analyzed, while descriptive statistics were used for QUANT survey analysis. Findings were merged and triangulated to explore the phenomenon from the perspectives of both the Survivors of IPV and VAW service providers. Design, implementation, analysis and interpretation were in partnership with the Ontario Association of Interval & Transition Houses (OAITH) - an association of first-stage emergency women's shelters, transitional housing, and community-based GBV organizations.

Results: The COVID-19 lockdowns in Ontario exacerbated factors that increased IPV at all levels, hindering Survivors' access to support, and service providers' ability to assist. Despite improvements in in-person shelter services post-lockdown, economic pressures such as inflation worsened IPV experiences, which hindered access to basic needs and mental health services. Participants identified solutions such as affordable housing and government funding at the macro-level, while suggesting more shelters and culturally sensitive services at the mezzo-community-level. They stressed the importance of individual micro-level access to information and education for survivors, as well as capacity-strengthening for staff. Service providers emphasized the importance of inter-sectoral collaboration and partnerships with criminal justice. Technology emerged as a key theme, highlighting both its advantages (i.e., reach and virtual-care) and disadvantages (i.e., digital-divide, technology-mediated-abuse).

Conclusion: The VAW sector is a complex, dynamic system; interconnected across various systems - social/health/justice/housing/education - and characterized by continuously adapting to unpredictable changes. Understanding factors influencing IPV experience and service access during emergencies, informs strategies for effective response and recovery. Integrating the VAW sector into disaster management is crucial for comprehensive preparedness.

C2.4 - Understanding Food Insecurity in Longer-living Older Adults Aging in Place in Rural Eastern Ontario

Presented by: Lauren Konikoff

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Background and Objectives: There is a significant gap in the literature on understanding food insecurity for longer-living older adults in the community. This study aims to better understand food insecurity from the lived experiences of community-dwelling, longer-living older adults (aged 80+). Learnings will inform the development of a food insecurity screening and assessment tool for use by a rural family health team (FHT) in Eastern Ontario.

Approach: In partnership with the FHT, we are recruiting longer-living older adults who are experiencing food insecurity (n=10) to participate in semi-structured interviews. To describe their lived experience, the team will collaborate on an iterative analysis using the hermeneutic phenomenological method. Macro- and micro-thematic reflections from each interview will be consolidated to create two composite phenomenological texts, which will read as a dialogue with someone with lived experience. To understand the needs of the population, transcripts will be analyzed inductively and deductively using reflexive thematic analysis and axial coding. Themes will be contextualized using an intersectionality-based policy analysis framework.

Results: Data collection and preliminary analysis will be complete by May 2024. Based on our data to date, our results provide significant detail on the experiences of rurally residing, longer-living older adults addressing key areas including mobility challenges, inaccessibility of grocery stores, cognitive decline, and unreliable familial support as key barriers to food security in this population. These results, collaboration through deliberative dialogues with the FHT, and the application of our theoretical framework, will help us to determine which supports and resources are preferred by this population, help to identify supports they would like to see, and inform the development of our food insecurity screening and assessment tool for use at the family health team.

Conclusion: This project will ensure that our food insecurity screening and assessment tool reflects the priorities of rural community-dwelling, longer-living older adults. A first iteration of this tool is being pilot tested with the community paramedics embedded in the West Carleton Family Health Team, with additional test sites planned for 2024.

C2.5 - Community-based Mpox Vaccination Implementation among Two-Spirit, Gay, Bisexual, Queer, and Trans Men and Non-Binary People (2S/GBTQ) in Canada: A Health Equity Analysis

Presented by: Nathan Lachowsky

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Background and Objectives: The World Health Organization declared the global mpox outbreak in summer 2022 a public health emergency of international concern. In Canada, the vast majority of the cases occurred among men who have sex with men (MSM). 2S/GBTQ community-led responses to mpox included education, health promotion, and vaccination efforts in partnership with public health authorities. Our objective was to evaluate the health equity patterns of which 2S/GBTQ were reached through rapid mpox vaccination scale-up across Canada.

Approach: We used a community-based participatory research approach applying a health equity lens. Cross-sectional survey data were collected in-person at 2S/GBTQ Pride festival events across Canada between 06-09/2022. Participants were aged 15+, 2S/GBTQ-identified, living in Canada, and able to self-complete the survey in English, French, or Spanish. Vaccination analyses were restricted to MSM aged 18+ who reported at least one indicator for vaccination: past-year STI diagnosis, multiple recent sex partners, or recent transactional sex. Data were analyzed considering calendar time and geographic location given the rapid evolution of the mpox outbreak. Chi-square tests were conducted to assess statistical significance ($p < 0.05$ significant).

Results: We recruited participants at 41 events in 21 communities across all provinces and one territory. Overall self-reported mpox vaccination uptake was 41.3% ($n=475/1150$), which increased over the study period (i.e., 12.6% in late June to 76.0% in early September). Vaccination uptake varied geographically (e.g. 5.5% in the Atlantic to 65.7% in Quebec). With respect to health equity indicators, vaccination was lower among transgender men than cisgender men (24.3% versus 42.5%), people without a university degree (29.1% versus 50.9%), those experiencing financial strain (30.9% versus 44.1%), those without Canadian citizenship (41.5% versus 57.4%), and those living in rural/remote versus urban/suburban communities (19.0% versus 43.3%). Open-text participant feedback indicated desires for more vaccine clinics, easier vaccine access, and more positive messaging about the benefits of being vaccinated.

Conclusion: Our findings draw on a robust Canada-wide sample, but rely on self-report cross-sectional data collected during highly dynamic mpox vaccination implementation. Regardless, Canada's experience with rapid mpox vaccination scale-up among 2S/GBTQ communities during summer 2022 was shaped by entrenched social determinants of health reproducing extant health inequities.

C2.6 - Using Health, Social, and Education Administrative Data to Look at Child Development Outcomes After Experiencing Household Challenge Adversity in Early Childhood

Presented by: Anita Durksen

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Background and Objectives: Adverse experiences in childhood can have a powerful impact on children as they develop and grow into adulthood. Much work has been done to understand the nature and impact of childhood adversity on mental and physical health later in life, as well as social, justice, and economic outcomes. However, few population-level studies of adversities and associated outcomes exist. This study uses administrative data to look at child development in the context of household challenge adversity.

Approach: Using linkable administrative data from health, social, and education services contained in the Manitoba Population Research Data Repository (MCHP), a cohort of children born between 2000-2012 was created. Children with intellectual and developmental disabilities were excluded and only one child per family was randomly chosen to be included. We looked at whether exposure to household challenge adversities between birth and 4 years of age, such as having a parent with a mental health or substance use disorder, poverty, or divorce, was associated with child development at kindergarten age. Child development was assessed using scores from the Early Development Instrument (EDI).

Results: In our cohort, 58% had a parent with a mental health disorder, 10% had a parent with a substance use disorder, 19% experienced household poverty, and 2% experienced divorce. After adjusting for variables that impact healthy development in children (e.g., age, sex, birth order, neighbourhood-level SES, parental education, newcomer status, and major childhood illness), we found that EDI scores were significantly reduced among children who had a parent with a mental health or substance use disorder or poverty, but not divorce. Odds of not meeting expectations in at least one domain of the EDI were increased most by poverty (OR: 1.99 (1.82-2.17)), and less so by the other adversities. Odds of not meeting expectations on the EDI increased with each additional household challenge adversity.

Conclusion: Administrative data can serve as an economical and less biased method to examine outcomes associated with early childhood adversities on a population level. Limitations include poor capture of some adversities (e.g., divorce) using administrative data. Policies aimed at reducing poverty should be a priority for child developmental health program areas.

C3.1 - Prevalence of Potentially Inappropriate Medications Among Older Adults with HIV: A MedSafer Study

Presented by: [Émilie Bortolussi-Courval](#)

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Background and Objectives: People with HIV are living longer and due to a combination of antiretroviral therapy (ART) and multiple co-morbidities, they are subject to polypharmacy (the prescription of ≥ 5 medications) and potentially inappropriate medications (PIMs) which may increase the risk of medication harm (e.g., falls, fractures, hospitalization). Taking one or more PIMs has been termed “medication overload”. This study aimed to describe the prevalence of polypharmacy and characterize medication overload among older people living with HIV.

Approach: In this retrospective cohort study, people living with HIV ≥ 50 years old were randomly sampled from outpatient visits to the tertiary care HIV clinic at the McGill University Health Centre (Montréal, Canada), from June 2022-June 2023. Age, sex, comorbidities, HIV infection duration, select laboratory values (e.g., CD4 count, hemoglobin a1C), and medications (including ART) were extracted from the electronic medical record and entered into MedSafer, a web-based portal identifying and classifying PIMs. The co-primary outcomes were the proportion of subjects with 1) polypharmacy (including and excluding ART) and 2) medication overload (≥ 1 PIMs), with multivariable logistic regression identifying associated factors.

Results: The cohort included 100 older people living with HIV with a mean age of 59.4 (sd=6.4, range 50-82) and 42% were female. Medication overload was present for 58/100 (58%) people. Including ART, the population was prescribed an average of 10 medications (sd=3.4) and 89/100 (89%) had polypharmacy (ART included and counted per molecule). Excluding ART, an average of 6.9 medications (sd=3.2) were prescribed and 60/100 (60%) had polypharmacy. MedSafer flagged 155 PIMs; 56 (37.6%) were high-risk (e.g., sedative-hypnotic), 58 (37.6%) intermediate-risk (e.g., long-term proton-pump inhibitors), and 37 (23.9%) low-risk (e.g., docusate). Multivariate logistic regression showed the only independent predictor of medication overload was polypharmacy; OR 6.28 (95% CI=1.21-32.64, p=0.029). Age, sex, HIV infection duration, and CD4 count were not significantly associated.

Conclusion: Older people living with HIV are at significant risk of polypharmacy, and newly described herein, at risk of medication overload and being prescribed high risk medications. This study highlights the critical role of identifying and intervening on PIMs in this special populations, to improve medication appropriateness and patient safety.

C3.2 - Exploring racial barriers and facilitators to accessing diabetes care in Ontario: A descriptive qualitative study

Presented by: Lauren Cadel

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Background and Objectives: The prevalence of diabetes differs among various ethnic groups, with individuals of Black descent having higher rates of diabetes compared to individuals of other descents. Ethnic minorities have also been reported to have an increased burden of diabetes-related complications. Therefore, the purpose of this study is to explore individuals' experiences, including barriers and facilitators, with access to diabetes care for Black populations in Ontario.

Approach: This is a descriptive qualitative study using semi-structured qualitative interviews. Participants include individuals who self-identify as Black, have diabetes, are able to read and communicate in English, and are living in Ontario. Purposive and convenience sampling strategies are used to recruit participants. Interviews are conducted by teleconference, telephone, or in-person based on participant preferences. All interviews are audio-recorded to facilitate analysis. A rapid qualitative analysis, following a directed content analysis approach will be conducted. Two analysts will be involved in coding data into a data display matrix and developing written summaries of the facilitators and barriers to accessing diabetes care.

Results: We will conduct approximately 15 interviews, which will allow us to achieve sufficient information power. We anticipate completing all interviews by March 2024 and will have finalized results by May 2024. To date, participants have described several barriers to accessing care for diabetes including: a general lack of understanding of the care or services required, inability to access timely transportation to appointments, and financial challenges. In terms of facilitators, participants have identified the importance of self-advocacy in order to access required services. Knowledge of the healthcare system, including how to navigate interactions between different healthcare providers has also been identified as a key facilitator to accessing diabetes care.

Conclusion: Exploring experiences with diabetes care across ethnic minorities can allow us to identify inequities in care provision across communities. Determining barriers and facilitators in accessing care can allow stakeholders to design implementations that specifically target Black populations to ensure that patients, regardless of background, can access the care they need.

C3.3 - Outpatient physician care patterns and end-of-life health care outcomes among people with heart failure: a descriptive population-based retrospective cohort study.

Presented by: Shuaib Hafid & Aria Wills

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Background and Objectives: Patients with heart failure HF may see many different physician specialties near the end of life (EoL); however, the proportion of care received from each of these different specialties is not well documented. Our objective was to describe prespecified patterns of outpatient care in the last year of life for patients with HF and explore how EoL healthcare outcomes vary by the identified patterns.

Approach: This retrospective cohort study of individuals with HF who died between 2017-2019 used health administrative data from Ontario. Patients were categorized into mutually exclusive patterns informed by the mix of outpatient healthcare encounters experienced in the last year of life, derived from the Ontario Health Insurance Plan database. Patterns included: family physician (FP), palliative care (PC), and specialist involvement; FP and specialist involvement; FP only; specialist or PC involvement; and no outpatient care. Pattern-specific EoL healthcare outcomes (i.e., emergency department/inpatient hospitalization use, location of death) were described using data from the National Ambulatory Care Reporting System and Discharge Abstract Database.

Results: Patients (N = 70,340) median age at death was 83 years, 54.3% were male, and 86.5% resided in urban regions. 28.6% of patients had FP and PC involvement, 35.2% had FP and specialist involvement, 20.9% had only FP involvement, 8.6% had PC or specialist involvement only, and 6.7% did not have any outpatient encounters. FPs maintained consistent involvement during the last year of life, while PC involvement increased near EoL. The FP and specialist pattern had the most patients dying in acute care settings (74.6%) and the highest hospital use in the last month of life (83.0%). The PC or specialist pattern had the least patients dying in acute care settings (47.4%) and the second least hospital use in the last month of life (57.8%).

Conclusion: Patients receive most outpatient care from FP and/or PC at EoL. Multiple specialties are involved, suggesting that illnesses other than HF are being cared for. Findings will inform the measurement of continuity of care at EoL and explore the relationship between continuity and EoL healthcare outcomes for people with HF.

C3.4 - Evaluation of continuity of care at the end of life for people experiencing organ failure: a retrospective population-based study.

Presented by: Michelle Howard

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Background and Objectives: The concept of continuity of care (CoC) requires attention near the end of life given the dynamic evolution of the care team. There may be additional specialists, intensification of primary care and transition to palliative care. Current quality of care metrics emphasize palliative care involvement, which is often not accessed for non-cancer illnesses. Our objective is to evaluate aspects of CoC and the association between CoC and end-of-life healthcare outcomes for individuals experiencing organ failure.

Approach: This is a retrospective cohort study of individuals with an organ failure dying trajectory (i.e., chronic kidney disease, advanced chronic obstructive pulmonary disease, congestive heart failure) who died in Ontario between 2017-2019. Using linked health administrative databases, CoC measures will be calculated across the last year of life using physician billing data from the Ontario Health Insurance Plan database, accounting for care patterns that may be beneficial for CoC such as regular family physician involvement and concentration of care among physicians. We will also examine associations between CoC and end-of-life healthcare outcomes.

Results: Patient demographics and clinical characteristics one year before death will be presented. We will also present the results of measures used to reflect CoC including the regularity of visits with the usual family physician and the concentration of care among all providers (i.e., Bice-Boxerman continuity of care index). We will report the results of multivariable regression analyses to examine the associations between the CoC measures and the following outcomes: time spent in hospital and at home (last 30 and 90 days of life), emergency department visits (last 2 and 4 weeks of life), place of death (institution or home), adjusted for patient demographics (i.e., age, sex, socioeconomic status) and clinical characteristics (i.e., comorbidities).

Conclusion: Disruptions to CoC may be expected near the end of life and high interpersonal continuity may not always be possible or desirable. Findings will inform future work to develop an adapted CoC measure relevant to the practice and policy in the end-of-life care context.

C3.5 - Sustaining an Integrated Team-Based Chronic Obstructive Pulmonary Disease (COPD) Management Program, in Primary Care: An In-depth Exploration of Best Care COPD (BCC)

Presented by: Shannon Sibbald

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Background and Objectives: Chronic disease management is a key priority across health systems, however, there is a gap in evidence on how to support the sustainability of effective programs in primary care. Chronic Obstructive Pulmonary Disease (COPD) is responsible for the largest proportion of health service utilization and death in Canada. This study explored mechanisms that supported the sustainability of an integrated team-based care program, known as Best Care COPD (BCC).

Approach: A collective case study approach was employed, and sites were examined where the BCC program had been implemented for at least one year. To understand the team dynamic within an integrated team-based model and the collective experience on adaptation and sustainability of BCC, 12 semi-structured interviews and four focus groups (n=19) with respiratory therapists, primary care providers, executive leadership, and BCC program leaders were conducted. We used the Program Sustainability Assessment Tool (PSAT) to understand adaptations made over the course of implementation. A document analysis was used to broaden the knowledge base regarding the sustainability of chronic disease management programs.

Results: Preliminary findings indicate strategic planning, strong stakeholder partnerships, along with funding stability are necessary factors to support the sustainability of the BCC program within the context of primary care. Furthermore, mechanisms such as program fidelity, establishing collaborative empowerment and practice-based evidence are mechanisms that enabled the BCC program within the context of primary care. Participants indicated the importance of having an integrated team-based care approach to supporting prevention and management for individuals with COPD. Participants also noted how sustained implementation of the BCC program optimized health outcomes for individuals with COPD.

Conclusion: The findings will provide a clearer understanding of strategies to support sustainability for integrated team-based care. Currently, sustainability is recognized as a challenge in translational research; this study provides a base for improving implementation processes within integrated team-based care models to promote high quality and sustainable chronic disease care.

C3.6 - Public prescription drug plans across provinces and territories: An environmental scan with policymaker interviews

Presented by: Jane Fletcher

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Background and Objectives: Cardiovascular disease, cancer, respiratory diseases, and diabetes are leading causes of death in Canada. Medications can improve outcomes, but due to financial and other barriers, adherence is suboptimal, leading to avoidable consequences for public health. Disparities in public medication coverage vary significantly by province and affect prevalence of cost-related non-adherence. Understanding the advantages and disadvantages of provincial/territorial approaches to coverage is important to inform plans for national pharmacare or to identify common cross-provincial priority areas.

Approach: We conducted an environmental scan to gather details on existing public medication coverage plans across Canadian provinces and territories. Using provincial and territorial websites, data was collected on each drug plan type (e.g., first payer status), cost-sharing structure (e.g., premiums, deductibles, copayments), plan details (e.g., coverage limits), eligibility requirements (e.g., age, income, disease), and products covered (e.g., drugs, devices). Plan summaries were then reviewed by administrators from 8 provinces and territories to confirm accuracy. Semi-structured qualitative interviews with administrators were used to identify themes in the perceived strengths and weakness of plans that were common across those provinces.

Results: Coverage structures varied widely, and included the use of premiums, deductibles, or copayments. Plans included flat rates or those calculated by income or drug costs. Deductibles could be flat, or based on income, drug costs, household size, or a combination of these factors. Premiums could also be flat or based on income or household size in a tiered system. Similarly, copays/coinsurance could be flat or based on income or age. Common challenges across provinces/territories based on directed content analysis of transcripts included coverage for high-cost drugs, rare diseases, aging populations, and low-income working people without insurance. Administrators also identified challenges and advantages to different plan types, including administrative, economic, equity, political, and feasibility factors.

Conclusion: Drug plan decision-makers and those developing solutions to gaps in current provincial and territorial coverage need to understand where those gaps exist across provinces/territories, where enhancements could be utilized, and where new and imaginative solutions could be developed to increase consistency in coverage across Canada and reduce cost-related non-adherence.

C4.1 - PeerOnCall: Factors influencing adoption of app-based peer support for First Responders

Presented by: Sandra Moll

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Background and Objectives: First responders or public safety personnel (PSP) do important, challenging work, however it can take a toll on their mental health, leading to elevated rates of post-traumatic stress injury. Unfortunately, there are many barriers to accessing help due to stigma and lack of access to relevant services and supports. PeerOnCall is a new mobile health platform designed to facilitate links to customized resources and peer support for correctional workers, firefighters, paramedics and police.

Approach: A prospective case study approach, informed by implementation science was used to study implementation of PeerOnCall in six participating organizations (2 police, 2 fire, 2 paramedic organizations). Data included app utilization patterns (e.g., # of downloads, features accessed), baseline and follow-up interviews with eleven organizational champions, and focus groups with peer supporters in each organization. Analysis was informed by the Consolidated Framework for Implementation Research to identify facilitators and barriers to uptake of the mobile health platform.

Results: Rates of downloading the application ranged from 5% to 55% of employees in participating organizations. Facilitators to uptake included a recognized need for mental health supports, supportive leadership, and a need to revitalize their peer support service. The app itself was noted to be easy to use, and people appreciated that it was customized for PSP and provided anonymous, private access to peer support. Barriers to use included ongoing stigma related to reaching out, skepticism regarding new technology, competing priorities, and limited peer support infrastructure. Communication strategies included leveraging trusted leaders (formal and informal), in-person information sessions, and messaging that emphasized anonymity and privacy.

Conclusion: It takes time and dedicated, ongoing resources to optimize adoption (downloads and ongoing use) of mental health supports. Implementation approaches need to be customized the unique culture and infrastructure of each organization.

C4.2 - A Study of BC's Drug Decriminalization Policy: Analyzing the Impacts on Substance-Induced Mental Disorders

Presented by: Mana Mohebbian

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Background and Objectives: Canada is grappling with a drug-use crisis. British Columbia(BC) reports the highest rates of opioid- and stimulant-related fatalities. A recent federal exemption permits possession of specified drugs without criminal charges, aiming to redirect individuals to health and social supports. However, concerns exist about potential unintended mental health consequences, given the impact of drugs on brain. We aim to present an evaluation of the impact of BC's drug decriminalization policy on incidence of Substance-Induced Mental Disorders(SIMD).

Approach: We propose a quasi-experimental Controlled Interrupted Time Series(CITS) analysis, utilizing BC administrative health data. The primary outcome is new episode of SIMD derived from linked health data consisting of physician visits, hospital admissions, and emergency department presentations in BC. We will extract ICD-9 and ICD-10 codes for mental disorders induced by opioids and/or stimulants from these data. The study spans 12 months before (January 31, 2022) and 12 months post-decriminalization (January 31, 2024). We will incorporate control series, including cannabis-induced mental disorders and chronic conditions, such as diabetes. We will adjust for auto-correlation, heteroskedasticity and seasonality in our models.

Results: This study is currently in the data request phase. Upon completion, we anticipate that the study findings would contribute to the discourse on drug decriminalization, specifically with regards to the policy's impact on SIMD in BC and potentially other jurisdictions. The results may help public health authorities gain insights into the policy's multifaceted impact, and motivate effective allocation of mental health resources. We expect that our project addresses a critical gap in understanding the broader implications of BC's recent drug policy, and provides essential information for ongoing policy evaluation and improvement.

Conclusion: Our study will offer a robust, arm's-length evaluation of the risks associated with BC's drug decriminalization policy. Findings aim to guide federal and provincial governments in future decision-making, enhancing understanding of potential intervention impacts. We anticipate that this evidence would contribute to informed and effective public health policies across Canada.

C4.3 - Exploring the Impact of Drug Decriminalization and Legalization Policies on Mental Health Outcomes: A Scoping Review

Presented by: Mana Mohebbian

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Background and Objectives: Drug policies in many parts of the world, particularly in Western countries, are shifting towards decriminalization and legalization. This change aims to reduce criminal enforcement and improve control over substance use. Nonetheless, it raises concerns about potential unintended mental health consequences, given the substantial impact of drugs on brain function. The objective of this presentation is to provide a comprehensive overview of the current literature exploring the impact of drug decriminalization/legalization policies on mental health.

Approach: A systematic search was conducted across MEDLINE, Embase, CINAHL, PsycInfo, and Web of Science, supplemented by grey literature. Eligible literature included original research, review papers, policy reports, and government documents published between January 1st, 2001, and December 15, 2023. We identified a total of 2,990 articles, which are currently being screened by two independent reviewers. Following the screening phase, we will proceed with full-text reviews and data extraction. Key features such as study design, region, participant demographics, type of drug regulation, and reported findings will be extracted and summarized.

Results: The review is currently ongoing, and results are expected to be available at the time of the conference. Our preliminary findings suggest a notable scarcity of studies on the mental health impacts of hard drug decriminalization worldwide. The majority of the literature we have reviewed to date focuses predominantly on the legalization of cannabis and its associated mental health outcomes. Most studies concerning cannabis legalization originate from Canada and the U.S., which underscores a lack of data from other countries that have adopted liberalization or decriminalization policies.

Conclusion: While definitive conclusions are pending, our preliminary review highlights a substantial gap in knowledge regarding the mental health outcomes associated with evolving drug-related policies. We anticipate that this evidence will serve as valuable information for policymakers, shedding light on the potential unintended mental health ramifications of drug-related policies.

C4.4 - The State of Mental Health Support for the Red River Métis: A Distinction Based Analysis

Presented by: [Kyler Nault](#)

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Background and Objectives: Poor mental health has been shown to have a significant impact on the overall wellbeing of the Red River Métis Community (Martens, 2010). The Manitoba Métis Federation (MMF) seeks to understand the attitudes of its Citizens concerning current mental health services and programming, while assessing Citizen satisfaction levels. This study aims to provide the MMF with pertinent information on current mental health programming to enhance support and increase service access for its Citizens.

Approach: Employing a Community Based Participatory Research, and Collective Consensual Data Analytic Procedure (CBPR/CCDAP) approach, a survey was conducted with participants who attended MMF health consultations in 2022 and 2023. This survey encompassed participant attitudes towards current programming, availability of services, and perspectives on future services. Our approach aims to understand current Red River Métis Citizen attitudes on mental health services through distinctions-based methods. The rates of participant responses were calculated and stratified by key differences such as age, and region to provide a comprehensive report on current Red River Métis mental health attitudes.

Results: In our investigation, 144 Red River Métis Citizens participated in the survey. Among survey participants, the most common stated causes of mental health issues were “addiction,” “trauma,” and “stress”. 20% (n = 29) of the participants reported that they are currently accessing mental health services. Notably, over 40% (n = 58) expressed dissatisfaction (“Unsatisfied” or “Extremely Unsatisfied”) with the available mental health services. Additionally, over 90% (n = 130) of respondents indicated a need for more mental health services for Red River Métis. Participants cited “Unaware of what services are out there and how to access them” and “Financial barriers” as the two most common barriers hindering mental health service access.

Conclusion: Many Citizens expressed dissatisfaction with the current services available. The barriers to accessing these services appeared to be the lack of awareness regarding available services and their utilization methods. Further research is needed to determine whether the issue stems from communication gaps, deficiency in services, or a combination of both.

C4.5 - Closing Transition Gaps & Increasing Access for Women with Substance Use Challenges: A Participatory Developmental Program Evaluation

Presented by: Rosanra Yoon

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Background and Objectives: Resources and capacity for implementation and evaluation research is limited in the not-for-profit women's sector. There is a gross need for partnered implementation and evaluation research of integrated care initiatives to inform policy and research. We highlight findings from a participatory evaluation of a program that co-locates three levels of substance use programming for women aimed to close transition gaps that was conducted through partnership between service providers, researchers, and people with living/lived experience.

Approach: By employing a Collaborative Participatory Evaluation approach, where evaluators and community partners share control of the evaluation in defining, developing, and implementing the evaluation, this study utilized a single case study design to:

- 1) Evaluate the implementation of a new integrated community-based multi-level program for women with substance use from a trauma & gender informed approach.
- 2) Increase organizational capacity for program evaluation of the non-profit social service community partner through evaluation capacity support.
- 3) Increase community engaged participatory evaluation capacity of all partners engaged in implementation evaluation research inclusive of experience advisors with living and lived experience of substance use.

Results: The model juxtaposes current dominant siloed services by eliminating transition wait-times resulting in avoiding disruptions in services and relationships with care providers that enable maintaining trust and connection. Policy implications are significant, in that the program evaluation results show that the program, designed from a gender and trauma-informed model addresses the gendered context of substance use in the lives of women from a multifaceted wrap-around intersectional approach that is difficult to address in the current fragmented predominantly male cis-dominated structures of care. Results show the impact of grassroots partnered evaluation to inform system change and the need for policies to support partnered evaluation of innovations that strengthen participation of people with living/lived experience, service providers and researchers for community-based innovations

Conclusion: Women experiencing substance use require the option of accessible gender-specific supports and spaces that meet their needs from a trauma and gender informed approach. Policy changes are needed to enable woman-centered and trauma-informed models of care which are currently poorly funded and integrated to be scaled.

C5.1 - Prioritizing the access needs of racialized women who experience intimate partner violence: A case study of dental care supporting economic empowerment.

Presented by: Isabel Arruda-Caycho

All Authors: *Beverley Essue¹, Carlos Quiñonez², Tina Meisami³, Clara Juando-Prats¹, Amaya Perez-Brumer¹, Patricia O'Campo¹, Cyndirela Chadambuka¹, Isabel Arruda-Caycho¹*

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Background and Objectives: Despite the importance of dental care as a significant resource for IPV survivors, there is evidence of unmet dental care needs among survivors (Weijs et al.,2019). An urgent need is to leverage equitable access to necessary dental care to support the economic empowerment of made-vulnerable populations. To meet this need, we conducted a research study examining the challenges racialized women experience when seeking dental care services in the Greater Toronto Area.

Approach: We used a qualitative case study design to answer the following research question: What are the barriers and facilitators to, and health, social and economic benefits of, accessing dental care from the perspectives of IPV survivors from racialized backgrounds and from the viewpoint of providers who serve these populations? Remote and in-person individual semi-structured interviews with racialized women who experienced IPV, and virtual focus groups with dental practitioners and shelter and community organization staff were conducted in Toronto. Data was coded using NVivo 12 software and analyzed thematically.

Results: Results are based on preliminary findings. Women must navigate varying pathways to access oral care, including through the referral process from shelters, hospitals, and victim services. Women travel to different locations to see multiple dental professionals to complete treatment. The inability to meet out-of-pocket expenses, including treatment and transportation, was reported as the primary challenge to seeking dental assistance. History of mistreatment and judgement by providers and institutions impacts willingness to seek and continue treatment. Positive dental care experiences empowered women and restored trust and confidence in themselves and their providers. Improving access to the type of care women need is essential to empower them to better their overall health and well-being and support their re-engagement in social, economic and productive activities.

Conclusion: This study centered the dental care needs of racialized women and illustrates the criticality of improving access to dental care for those often marginalized in current systems. This work informs service providers and provides guidance for the National Dental Care program about the needs of diverse GBV survivors.

C5.2 - 'Exploring health equity trends and associations between outcome measures in hip and knee replacement recipients: the value of combining patient reported and clinical data

Presented by: Tooba Fatima

All Authors: *Candy Chow¹, Tianhong Cai¹, Ricky Chin¹, Clarissa Encisa¹, Kunj Joshi¹, Micheline Turnau¹, Krysia Walczak¹, Michael Turner¹, Tooba Fatima¹, Pauline Chu¹, Robin Santiago¹*

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Background and Objectives: Hip and knee replacements are among the top three most frequently performed inpatient surgeries in Canada. To ensure health care is optimized for the patient population, it is essential to understand and address the disparities that different subpopulations face. Viewing Patient Reported Experience Measures (PREMs) from a health equity lens and linking to patient Reported Outcomes Measures (PROMs) and clinical data can provide a comprehensive picture to better understand health system needs and drive change.

Approach: Survey data were collected from patients by hospitals using the Canadian Institute for Health Information's Canadian Patient Experiences Survey — Inpatient Care (CPES-IC) for PREMs. For PROMs, the Oxford Hip/Knee Score, EQ-5D-5L, and Satisfaction question were collected before and 12 months after surgery. Clinical outcome data were extracted from CIHI's Discharge Abstract Database and National Ambulatory Care Reporting System. The sample (PREMs: n=21,425; PROMS n=7,935) included patients diagnosed with osteoarthritis who were admitted for primary, elective, unilateral, inpatient hip or knee replacement surgery from 2017-2022. Stratified PREMs results were age-sex standardized, adjusted for survey design, nonresponse, service line and survey mode.

Results: Notable differences were observed amongst patient demographic groups. Lower proportions of patients aged 75 and older reported favorable patient experiences compared to younger age groups for discharge management (59% vs 64%-66%), communication with nurses (70% vs 72%-76%), communication with doctors (75% vs 78%-82%), and involvement in decision making (60% vs 63%-66%). A higher proportion of males compared to females reported favorable patient experiences for discharge management (68% vs 61%), communication with nurses (78% vs 72%), involvement in decision making (67% vs 62%) and overall hospital experience (73% vs 68%). Increased 1-year satisfaction with surgical results was positively associated with multiple PREMs, with the strongest association being with overall hospital experience ($r=0.32$, $p<.0001$). Hospital harm decreased with more favorable responses to communication with doctors ($r=-0.22$, $p=0.01$).

Conclusion: Collecting patient-reported data and analyzing alongside administrative and clinical data sources can help identify social disparities. Bringing data from multiple sources together creates a comprehensive picture of the health system and can accelerate data-driven decision making to optimize health system performance planning and improve patient outcomes and experiences.

C5.3 - Evolving Operations to a Population Health Approach: An Organizational Case Study of Mental Models among Health System Leaders

Presented by: Braeden Terpou

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Background and Objectives: Still grappling with the sobering realities of limited resources and historic waitlists, many hospitals are shifting their attention to the future challenges of healthcare. Some hospitals are adopting a population health approach to address these challenges, extending beyond acute care needs to proactively promote the overall health of the population. The objective of this study was to assess leaders' perspectives on the early stages of implementing a population health approach within a large Ontario hospital.

Approach: In this qualitative case study, we interviewed 13 senior leaders at Trillium Health Partners, one of Canada's largest community hospitals, during the early-stage implementation of a population health approach. The participants included leaders responsible for shaping the organization's vision (e.g., CEO, Chief of Staff) and those responsible for operationalizing it (e.g., Program Chiefs, Program Directors). The interviews explored leaders' perspectives regarding a population health approach, along with their beliefs about what the organization could do to facilitate this transition. Our analysis followed an inductive, thematic approach, identifying distinct sets of perspectives and beliefs among leaders in their comprehension and understanding.

Results: Varying perspectives and beliefs emerged among leaders regarding the value of a population health approach, constituting the basis of distinct mental models. Mental Model I was aligned with the organization's operational challenges and perceived the approach as a trade-off with the acute care elements of care delivery, while Mental Model II saw promoting population health as a proactive solution to these same operational pressures. Leaders responsible for shaping the organization's vision strongly aligned with Mental Model I, while those responsible for operationalizing the vision were divided between the two. This divergence on the value of the approach influenced how leaders perceived themselves engaging with it. Despite these differences, leaders unanimously recognized the organization's culture and operational processes as needing to evolve to support this transition.

Conclusion: This work underscores the importance of a shared, organizational mental model to align transformational efforts with the bifocal lens of a population health approach. While aligning leaders' perspectives is crucial, the most effective way to bring a shared vision to life is by harnessing the organizational setting as a catalyst.

C5.4 - Demonstrating the value of Patient-Reported Outcome Measures in health system performance reporting for hip and knee replacements

Presented by: [Kryisia Walczak](#)

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Background and Objectives: Patient-reported outcome measures (PROMs) data is increasingly being collected and used to evaluate and report on health care systems in Canada as well as to advance value-based healthcare approaches. This project provides a demonstration of using PROMs with different types of hip and knee replacement health data to provide a holistic approach to assessing care, explore health equity, and determine associations among linked data.

Approach: Data were compiled from six sources at the Canadian Institute for Health Information (CIHI) for adult patients with osteoarthritis who were admitted for a hip or knee replacement surgery between 2017 and 2022. A total of 7,935 PROMs surveys (Oxford Hip/Knee Score, EQ-5D-5L, and satisfaction) were completed by patients before and 1-year post-surgery. PROMs data were combined with patient-reported experience measures (PREMs), clinical outcome measures, and patient-level costing data and stratified by health equity measures (age group, sex/recorded gender, neighbourhood income quintile, and geographic location). A linked dataset was created to examine the association between PROMs and patient-level costs.

Results: We observed health equity trends across all types of data. Older patients reported lower 1-year change in overall functional status (Oxford Hip/Knee Score) with an average of 18.5 on the 48-point scale compared to younger patients (20.5) and lower health-related quality of life (EQ-5D-5L) with an average of 0.26 over the 1-point scale compared to younger patients (0.31). Patients in lower income neighbourhoods had lower satisfaction (80.6%) than patients in higher income neighbourhoods (84.5%). Hip replacement patients reported higher change in overall functional status, health-related quality of life, and satisfaction 1-year after surgery compared to knee replacement patients. Higher patient-level hospital costs were significantly correlated with increased overall functional status ($r=0.06$, $p=0.0008$) and higher health-related quality of life ($r=0.08$, $p<.0001$), though these correlations were weak.

Conclusion: Combining PROMs, PREMs, clinical outcomes, and costing data provides a more holistic assessment of value-based healthcare approaches. Health equity trends and correlations were observed which warrant further in-depth analysis. Linking PROMs with other data types can identify factors to support patient-centred care and optimize health care systems performance planning.

C5.5 - Disparities in realized spatial access to emergency room care across the rural-urban spectrum

Presented by: [Samantha Walker](#)

All Authors: *Samantha Walker*¹

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Background and Objectives: Despite constituting 18% of the Canadian population, only 7.5% of physicians are in rural areas. Modelling barriers to care are highly dependent on geographical context, so space and place must be included in analytic and modelling approaches. The objective of this research was to model how rural residents use emergency care services, comparing the actual distance travelled for care against calculations for the closest facility.

Approach: Predicted access to care is the most commonly used method of modeling access to care services for rural areas. Comparing these measures to actual access to care is a novel approach. Our analysis included rural residents in 9 Canadian Provinces (excluding Quebec) and focused on access to 24-hour emergency departments. Census-linked administrative data was used to model realized use of emergency facilities for rural residents and modelled against predicted access to the nearest facility. Our analysis used a custom open-source database of geographic access to care facilities and models considered multiple factors at individual and community levels.

Results: Results show that there are variations between the predicted and realized use of care services for rural residents. Individuals may not always use the geographically closest facilities, even for emergency care. This suggests that even in a system with free, publicly provided emergency care services, there are factors other than distance that influence the choice of which facility to attend. Further analysis will demonstrate whether sociodemographic factors affect actualized access to health and care services. Tables for realized and closest travel time will be available as downloadable datasets of health service accessibility and in a web-based data visualization tool.

Conclusion: Realized access to health services illustrates that considering only the closest facility limits our understanding of how rural residents use health and care facilities. We plan to use the evidence and data directly to develop a methodology for evaluating barriers to health service access for rural high resource health users.

C6.1 - Increased hospital staffing challenges during the pandemic coincide with increased rates of unintended patient harm

Presented by: Chantal Couris & Farhad Mehrtash

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Background and Objectives: COVID-19 brought many challenges to Canada's hospital staff, including changing needs of complex patients, resource availability, elevated workload, and burnout. During this time, there was increased overtime, sick time, and reliance on agency staff within inpatient units. This report presents these staffing indicator trends alongside data on unintended harm in hospitals. The findings highlight the importance of supportive work environments to enable effective team-based care, ensure safe staffing levels, and improve patient safety.

Approach: Data from CIHI's Canadian MIS Database was used to track national trends in inpatient unit staff overtime, sick time, and private agency hours in Canada's public hospitals between 2017-2018 and 2021-2022. Trends in annual growth and rates as a percentage of total working hours were assessed.

Data from CIHI's Hospital Harm Indicator was also analyzed, specifically national trends in occurrence of staff-sensitive outcomes including pressure ulcers, pneumonia, aspiration pneumonia and urinary tract infections (UTIs). Average rates per 100 hospitalizations were calculated for the pandemic period (2020-2021 to 2022-2023) and compared to pre-pandemic baselines.

Results: Hospital inpatient unit staff across Canada logged unprecedented overtime and sick time in 2021-2022. Overtime increased by 50%, reaching 14.2 million hours (equivalent to ~7,300 full-time equivalent positions (FTEs)). Sick time increased by 17%, reaching 12.8 million hours (~6,500 FTEs). Hospitals also relied more on private agencies to fill gaps; there was an 80% increase in hours worked by 3rd-party agency staff, reaching 1.5 million hours.

The overall rate of unintended hospital harm in Canada increased to 6% in 2021-2022 and 2022-2023 after remaining stable around 5.4% since 2014. UTIs, pneumonia, aspiration pneumonia and pressure ulcers are harms that may be linked to staffing levels, and the rate for each increased by between 20% and 50% during the pandemic.

Conclusion: Increased overtime, absenteeism and reliance on agency staffing can intensify challenges in care delivery and create potential for unintended harm to occur. Further granular analyses considering factors such as staff mix, facility size and services, and population needs may support strategies to improve quality of employment and patient care.

C6.2 - The Crisis in Family Medicine: A repeated cross-sectional study of medical graduates' pursuit of family medicine residency in Canada

Presented by: Courtney Maskerine

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Background and Objectives: Canada is in the midst of a primary care crisis with an increasing number of residents without timely access to a family physician. Understanding how different medical schools in Canada have contributed to the supply of family physicians may highlight opportunities to improve the state of primary care in Canada. This study aimed to examine changes over time in the choice of specialization in family medicine by graduates of each medical school in Canada.

Approach: We conducted a population-based repeated cross-sectional study in Canada capturing what residency program each medical student in Canada entered between 2000-2021. We used data from the Canadian Post-MD Education Registry (CAPER), which collects demographic and residency data for all medical schools (n=17) and post graduate residency programs in Canada. Our outcome was entrance into a family-medicine residency program. We used descriptive statistics to capture changes over time. Logistic regressions adjusted for age and sex are currently being conducted to track the association between medical school of graduation and entry into family medicine residency.

Results: Over the 21-year study, there were 50,279 Canadian Medical Graduates (CMGs) of which 20,504 (40.8%) entered family medicine residency in Canada during the study period. Of the graduates who selected family medicine, the majority are female (63.1% female vs. 36.9% male). Overall, medical schools with the lowest proportion of graduates entering family medicine residency included McGill University (31.1%), Queen's University (32.4%) and University of Toronto (32.9%). In contrast, the schools with the highest proportion were Université de Sherbrooke (48.0%), Université de Montreal (49.7%) and Northern Ontario School of Medicine (NOSM) (58.0%). Between 2000 and 2021, the proportion of CMGs entering family medicine changed from 37.8% to 42.8%. Regionally, the greatest change over the study period occurred in Quebec with an increase from 39.3% to 47.6%.

Conclusion: This study highlights variation in the proportion of medical student graduates entering family medicine residency depending on their medical school of graduation. Schools with lower numbers of medical graduates entering family medicine may benefit from reviews of curriculum and admission strategies to improve selection of family medicine as a specialty.

C6.3 - The employment, retention and exit of publicly employed nurses in New Brunswick: an analysis using linked administrative data

Presented by: Ted McDonald

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Author Affiliations: *1University of New Brunswick*

Background and Objectives: As in many jurisdictions, New Brunswick is facing an acute and continuing shortage of nurses, as both domestic and international recruitment fail to keep pace with retirements and resignations. Nursing shortages have resulted in frequent surgery cancellations and temporary facility closures. The purpose of this retrospective study is to analyze the recruitment and exit decisions of nurses in NB's public health system in order to guide ongoing recruitment and retention efforts in the province.

Approach: The analysis will use a unique linked administrative data set that combines individual-level nurse employment data, immigration landing records, university graduation data and Medicare health insurance registry data on all publicly employed registered nurses in NB as well as individuals who graduated from a University nursing program in NB, and immigrants to NB who previously trained as nurses in their home country. Data are provided by multiple government departments and agencies and are accessed through the NB Institute for Research, Data and Training. The analysis includes both descriptive statistics and econometric methods appropriate to the particular outcome of interest.

Results: The analysis will present results on four dimensions of nursing employment. The first is transitions from nursing programs in NB universities into employment in the NB public health system. The second is transitions of internationally educated nurses into employment as nurses in the NB public system and the duration of those transitions, which will reflect the process of credential evaluation, training and licensing. The third is exits from employment in the public health system, with consideration of both retirement and pre-retirement departures. The fourth is mobility decisions of those nurses exiting employment and whether they remain in the province after leaving employment. The potential effects of a range of demographic, geographic and health system level factors on these outcomes will be considered.

Conclusion: Analysis of entry to and exit from nursing employment in NB and factors associated with those dynamics will be vital for health resource planning for a province dealing with growing labour shortages. The unique nature of the linked data will also generate important insights for other jurisdictions facing similar challenges.

C6.4 - Adaptive models of care implemented in hospital ICUs during the COVID-19 pandemic

Presented by: Linda McGillis Hall

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Background and Objectives: The COVID-19 pandemic led to an increased demand for hospital beds, which led to unique changes in the organisation and delivery of patient care, including the adoption of adaptive models of care. Understanding the effectiveness of these adaptive models of care can inform future health leadership decisions on staffing, work environment and care delivery. Our objective was to understand staff perspectives on adaptive models of care employed in intensive care units (ICUs) during the pandemic.

Approach: We used a descriptive interpretive qualitative design to explore staff nurse and nursing management team perspectives of the adaptive models of care implemented in hospital ICUs during COVID-19 through focus group interviews. The study was conducted in eight hospitals from an academic health network in a large urban community in Canada, comprised of over 6.5 million people. We interviewed 77 participants representing direct care staff (registered nurses) and members of the nursing management team (nurse managers, clinical educators and nurse practitioners) from 12 different ICUs. Thematic analysis was used to code and analyse the data.

Results: The analysis revealed three key themes about the adaptive models of care implemented: (1) effective elements, (2) challenges experienced and (3) areas of consideration for future implementation moving forward. Further analysis identified subthemes for each theme. Effective elements of the adaptive models of care comprised subthemes relating to (1) appreciation for redeployed staff, (2) organising aspects of team-based models and (3) the ICU culture. Challenges encountered with the adaptive models of care included subthemes of (1) heightened workload, (2) influence of experience, (3) disparity between model and practice and (4) missed care. Finally, subthemes related to areas for future consideration moving forward were: (1) debriefing, (2) advanced planning and preparation, (3) the redeployment process and (4) management support and communication.

Conclusion: Adaptive models of care implemented in ICUs during the pandemic provided a rapid solution for staffing during the critical care patient surge. Our findings highlight challenges implementing redeployment as a staffing strategy, including role clarity and accountability influences on model adoption, leading to workarounds and adverse patient and nurse outcomes.

C6.5 - Now hiring: an overview of health workforce vacancies in Canada

Presented by: Tyler Pirie

All Authors: Tyler Pirie¹

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Background and Objectives: There is an urgent need to address health human resource shortages in Canada. Inadequate supply of health human resources can result in reduced patient safety, poor patient outcomes, staff burnout, and reduced quality of care. Measuring and reporting health workforce vacancies can inform needs-based planning initiatives and policy making. The primary objective of this project was to develop a set of pan-Canadian vacancy metrics to measure and track vacant health workforce positions in Canada.

Approach: Using data from Statistics Canada's Job Vacancy and Wage Survey (JVWS), we calculated (1) the average number of vacancies among the health workforce in Canada; (2) the proportion of health workforce vacancies by occupation; and (3) year-over-year changes. The scope of our analysis was limited to eight occupational groupings spanning fiscal years 2015-2022. The vacancy metrics were calculated at the national, provincial, and territorial level. A custom denominator, comprised of all NOC "health occupations" and four NOC "occupations in education, law and social, community and government services", was developed by Statistics Canada to calculate proportions.

Results: Our results yielded several key findings: (1) there was an average of 120,100 health workforce vacancies in Canada in fiscal year 2022. This reflects a quadrupling of vacancies among health human resources since fiscal-year 2015; (2) personal support workers (25.7%), registered nurses (23.3%), and select mental health workers (17.8%) accounted for two thirds of all health care job vacancies; (3) all provinces experienced growth in health workforce-related job vacancies compared to the previous fiscal year; (4) the largest increase in health-related job vacancies were observed in Prince Edward Island (56.3%) and Saskatchewan (51.7%), while the smallest were observed in British Columbia (6.7%) and Alberta (8.0%).

Conclusion: There is an urgent need to address health workforce shortages in Canada. Shortages among the health workforce pose a significant threat to the quality and accessibility of health care. Investments in data collection and reporting, at all levels, are needed to improve planning and policy initiatives.

C7.1 - Intersectional Effects of Income and Gender on the Time to Admissions to Long-Term Care in Quebec

Presented by: Clara Bolster-Foucault

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Background and Objectives: An overwhelming majority of older adults wish to remain in their homes and communities (“age in place”) rather than transition to long-term care (LTC) facilities. However, as publicly-funded home-based care is limited in many jurisdictions, the social dimensions that influence health across the lifespan may create disparities in the ability to age in place. Our objective was to examine socioeconomic and gender-based inequities in the time to LTC admissions in Quebec from an intersectional lens.

Approach: Using the TorSaDE Cohort, which contains data from Canadian Community Health Survey respondents (waves 2007-2016) linked to longitudinal provincial medico-administrative data (RAMQ) from 1996-2016, we created a representative sample of community-dwelling Quebec residents aged 65 and older (n=25,146). We used multivariate Cox proportional hazards models to measure disparities in the time to LTC admission by gender and income, adjusting for health status and social context. We used age as the time-scale and adjusted for competing risk of death using the Fine-Gray method. Intersectional effects between gender and income were examined using statistical interaction to model their joint association.

Results: A total of 1,359 (5.4%) participants were admitted to LTC and 1,893 (7.5%) participants died during follow-up. The mean age of admission to LTC in the cohort was 82.8. When modelling the effects of gender and income separately, women appear to have a slightly lower risk of admission to LTC compared to men (HR=0.91, 95%CI: 0.81-1.03) and older adults with a household income below \$20,000 have increased hazard of admission to LTC than those with a household income above \$20,000 (HR=1.30, 95%CI: 1.14-1.45). When examining the joint effects of gender and income, the effect of low household income is magnified among men (HR=1.78, 95%CI: 1.45-2.17) but is reversed among women (HR=0.63, 95%CI: 0.50-0.80). We found no effect of gender among those with high household income.

Conclusion: Our results reveal meaningful socioeconomic disparities in the time to admission to LTC among older adults in Quebec. The effect of income differs substantially among men and women, indicating important intersectional effects. These findings can inform efforts to equitably support aging in place among underserved populations.

C7.2 - Interprofessional Teams Supporting Care Transitions from Hospital to Community

Presented by: Cara Brown

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Background and Objectives: Poor outcomes for older adults transitioning from the hospital to home are common. Quality care transitions require integrated teamwork of many health and social care professionals in both the hospital and the community, therefore, expansion of team-based primary care has potential to improve care transition outcomes. Collaboration between hospitals and primary care is known to be challenging. Reviews to date provide little guidance on how interprofessional teams can support care transitions across care settings.

Approach: We conducted a scoping review to identify and map peer-reviewed literature on how interprofessional teams work together to support older adults transitioning from hospital to community. We used the six-stage framework developed by Levac and colleagues (2010) and the Joanna Briggs Institute scoping review guidelines. We searched six databases for English articles published between January 2000 and July 2022. We independently screened with two reviewers in three stages (title, abstract and full-text) and then extracted and charted data on the characteristics of the articles. We used a narrative synthesis approach to extract data on strategies used by interprofessional teams.

Results: Our structured search and screening resulted in 70 articles, published between 2000 and 2022 from 14 countries. There were 32 quantitative articles (including 18 randomized controlled trials), 5 qualitative articles and 33 articles of other types. Twenty-six programs were described that had interprofessional teams in both the hospital and community to support care transitions. The qualitative articles suggested that effective teamwork is crucial for care transition quality. Quantitative research describes two main groups of strategies to promote interprofessional collaboration for care transitions. The first group of strategies is how care is organized and delivered to support care transitions. This includes interprofessional care models, and interprofessionally delivered assessment and intervention. The second group of strategies are ways that collaboration and communication are promoted.

Conclusion: The literature on how teams can work together to promote care transition quality across health care boundaries is at the descriptive level, and lacking evaluation. Without more focus on how to support teamwork, the addition of more interprofessional teams to the health care system could potentially increase care fragmentation.

C7.3 - Supporting Long-Term Care Staff in Managing Stress: A Coherent Breathing Intervention and Process Evaluation

Presented by: Brittany DeGraves

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Background and Objectives: Long-term care (LTC) staff need interventions to help manage their well-being and stress due to ongoing stressors that have increased during the COVID-19 pandemic. Examples of these ongoing stressors include short staffing, illness, infection control and resident isolation. Our study evaluated a pre-post intervention with a comprehensive process evaluation. The intervention was a coherent breathing technique intended to assist LTC staff in managing stressors more effectively. It occurred in Alberta LTC homes in 2022.

Approach: Pre-post intervention study with a comprehensive process evaluation including 254 staff from 31 LTC homes. There were two intervention groups: comprehensive (breathing + biofeedback device) and basic (breathing only). Participants attended an education session, followed by eight weeks of coherent breathing (daily, 5-7 days a week, increasing from 2-10 minutes per session). Measures of well-being, including stress, anxiety, depression and insomnia, were measured via questionnaires completed pre- and post-intervention. Mixed-effects regression models were used to analyze pre-post changes in these measures. Process evaluation data were collected using a variety of methods, including focus groups, attrition surveys, and questionnaires.

Results: Statistically significant improvements from pre- to post-intervention were found in measures of anxiety ($b=-0.5$, $p<0.001$), stress ($b=-2.5$, $p<0.001$), depression ($b=-0.4$, $p<0.01$), and insomnia ($b=-1.5$, $p<0.001$). Similarly, our focus group findings indicated there were multiple benefits of the breathing technique and that there was an overwhelming appreciation for the breathing intervention among staff. Focus group participants also reported that they adapted the technique to their needs and were working to share the technique with others. Many participants asked for tools to help implement coherent breathing in their LTC homes. The process evaluation also demonstrated that some homes had adopted coherent breathing, e.g., doing breathing huddles during reports, at a unit level/organizational strategy to assist in times of acute stress or to prepare for the shift.

Conclusion: Coherent breathing is a simple, low to no-cost, accessible intervention that can improve the stress and mental health of LTC staff. In response to calls to help share and adapt this beneficial intervention, our team has been building a toolkit to help LTC homes implement the intervention with their staff.

C7.4 - Variations in Prescribing Rates of Subcutaneous Palliative Medications among Home Care Residents at the End-of-life: A population-based retrospective matched cohort study

Presented by: Deena Fremont

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Background and Objectives: Nearing the end of life (EOL), a major concern of both patients and families is symptom management during the dying process. A variety of medications are commonly prescribed for EOL symptom management to limit potential distressing emergency room visits or hospitalizations. The aim of this study is to describe the variation of rates of prescribing subcutaneous medications commonly used for symptom relief at EOL among home care recipients.

Approach: This retrospective cohort study included all decedents in Ontario aged 66 or older who received home care at least one month prior to death between January 1, 2017, and March 17th, 2020. These medications (names and unique Drug Identification Numbers (DIN)) were identified based on an extensive literature review and consultation with Ontario palliative care physician experts. We measured the percentage of decedents prescribed an EOL symptom management medication in the last 6 weeks of life. Outcomes included emergency department visits and hospitalizations in the last two weeks of life, and location of death (community vs. other).

Results: Of the 77,605 home care decedents identified, nearly one quarter (24.7%) received an EOL symptom management prescription. The odds of receiving a prescription were 3.43 (95% confidence interval (CI): 3.12 - 3.76) times greater for those receiving home care under an EOL service designation. Compared to individuals who received 1+ prescription, those who did not receive a prescription were more likely to have 1+ emergency department visit (OR 5.62, 95% CI 5.17 - 6.10) or hospitalization (OR 5.88, 95% CI 5.38 - 6.43) in the last two weeks of life, and were less likely (OR 0.56, 95% CI 0.54 - 0.59) to die in the community.

Conclusion: Our findings suggest that variations in end-of-life symptom management prescribing exist among home care decedents. This information can be utilized as evidence to formulate recommendations for changes to end-of-life clinical practice, service delivery, and policies to improve outcomes for a vulnerable segment of Ontario's population.

C7.5 - Tensions and Contradictions in Stakeholders' Perceptions of the Value or Real-Time Location Systems in Long-term Care Homes

Presented by: Alisa Grigorovich

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Background and Objectives: Real-time location systems (RTLS) are increasingly being developed to track the movement and activities of older adults with cognitive impairment across settings. The limited available research suggests that there may be challenges to adoption and scale-up of these surveillance technologies due to conflicting values of stakeholders. In this study, we explored the experiences and perceptions of residents, caregivers, and organizational decision-makers with these technologies in one long-term care home in Ontario that implemented an RTLS.

Approach: Using a mixed methods design, all participants completed a brief survey and then an in-depth semi-structured interview. Interview questions explored participant values and preferences for RTLS, decision-making with respect to adoption and refusal, and alignment of implementation decision-making and institutional goals and values. Theoretically guided thematic analysis was used to identify alignment and inconsistencies between the perspectives of stakeholders, including the benefits and drawbacks of using these and value tensions.

Results: Participants (N=47) demonstrated a limited understanding of RTLS (e.g., how it could be used, data storage, ethical issues) and this in turn influenced their perceptions of its value. Residents were generally unaware of its purpose and more concerned with its aesthetics. Caregivers and decision-makers valued the RTLS for its role in supporting management of risks to the physical safety of residents and believed this was central to enhancing quality of care. Most had limited awareness of residents' preferences; however, they acknowledged that the use of RTLS was likely inconsistent with their value for privacy and autonomy. Staff were unwilling to wear RTLS sensors themselves, however organisational decision-makers were interested in the potential of RTLS to optimize workforce operations, particularly in terms of increasing operational efficiency.

Conclusion: Use of RTLS and other surveillance technologies in long term care homes may be perceived differently by stakeholder groups. More research is needed to inform the development of interventions that improve stakeholders' understanding of RTLS and to guide decision-making regarding its use, particularly in settings involving residents with cognitive impairment.

C8.1 - Co-Production in Social Prescribing: A multiple case study

Presented by: Le-Tien Bhaskar

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Background and Objectives: Social prescribing (SP) is a practice which links healthcare patients with nonclinical social and community services. Often cited as integral to its practice is co-production, which describes the fair collaboration between patients, communities, and health workers. As SP continues to grow, there are concerns about how to preserve the integrity of community-based practices that have emerged during grassroots implementation, including co-production. This research considers how such practices can be supported as SP scales.

Approach: A descriptive multiple case study was conducted in from September - December 2023. Four implementation sites were purposefully selected as cases that demonstrate exemplary practice of SP: (a) S.U.C.C.E.S., B.C; (b) carya, A.B.; (c) Somerset-West Community Health Centre, O.N., and (d) Bromley by Bow, England. Data were collected from qualitative interviews ,program and policy documents, and direct observation. A total of thirty-three (n=33) interviews were conducted, with participants including policymakers, program administrators, front line workers, and service users. Data were analysed by the research team to identify and compare practices. This is approved by the University of Toronto Research Ethics Board.

Results: Data analysis is currently underway. Findings will be available by March 2024. Expected findings of this research are case descriptions of how SP has emerged and grown in different contexts across the Canada and England, and how co production is being used in each practice. Case descriptions will include: (a) details on how SP is implemented in each case; (b) how co-production is used at three key scales (service, program, and policy); (c) how co-production and SP has been diffused or disseminated across provincial and international systems; and (d) insights on how co-production in SP has or will be spread and scaled within each context. These findings will result in policy recommendations on how co production in SP can be practiced.

Conclusion: This is the first case study comparing exemplary SP practices across Canada and England. Understanding how co-production is used in SP across various contexts, and its role in program or policy growth, allows for greater understanding of SP 'best practices' for both policy makers and program implementors.

C8.2 - Perspectives on pharmacogenomic (PGx) testing for antidepressant prescribing in primary care: a qualitative description study

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Background and Objectives: Pharmacogenomic (PGx) testing was developed to facilitate more efficacious prescribing of medications including antidepressants. PGx testing is not yet a routine component of depression care in Canada, but implementation is an active policy area. The perspectives of patients and those involved in the design or delivery of PGx testing (clinicians, scientists, participants in the policy process, industry members) are critical to health technology assessment (HTA) and policy decisions, and can inform implementation.

Approach: To produce actionable patient and key informant perspectives evidence for future HTA and policymaking around PGx testing, we conducted semi-structured interviews and focus groups with adults with major depressive disorder (“patients”), and with clinicians, scientists, participants in the policy process, and industry members (“key informants”) knowledgeable about PGx testing to guide antidepressant prescribing. Analysis proceeded in parallel with data collection and occurred in two phases. First, we inductively summarized transcript content. Next, we used the Ontario Decision Determinants Framework (developed for health technology funding decision making) to conduct an unconstrained deductive content analysis, mapping inductively generated codes to framework domains.

Results: Thirty-nine people participated (21 patients, 8 scientists, 5 clinicians, 4 participants in the policy process, 1 industry member). Participants felt the main benefit of this technology would be reducing the time between diagnosis and successful treatment, and viewed primary care as the appropriate setting for deployment of this technology. While patients and clinicians preferred a prescribing clinician be involved in PGx testing, scientists highlighted pharmacists as essential. All participants recognized potential outcome inequities since most PGx research was conducted with white/European participants and advocated for more research with people of different geographic ancestries. Participants felt access to PGx testing should be based on need rather than ability to pay, but patients did not identify funding this technology as a top health system priority.

Conclusion: Patients, clinicians, scientists, participants in the policy process, and industry members have similar views about PGx testing for antidepressant prescribing. More clinical effectiveness research is required using outcome measures important to patients. Formal adoption of PGx testing requires a focus on equity of access and outcomes.

C8.3 - Preparing Health Professionals for Health System Transformation: A Framework for Health System Transformation for the Education of Health Professionals in Canada

Presented by: Ashley Chisholm

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Background and Objectives: The current state of health professions education does not adequately prepare health professionals for health system transformation. This paper presents a comprehensive framework, grounded in the findings of an extensive mixed-methods stakeholder consultation on health system transformation in the education of health professionals. Our proposed framework addresses the critical need to bridge the gap between education and practice in health care, catering to the evolving needs of the Canadian health system.

Approach: Our research unfolded in a two-phase, sequential, exploratory mixed-methods study. Phase I involved a scoping review to understand the current state of health system transformation in health professions education. In Phase II, we conducted a mixed-methods stakeholder consultation, combining a quantitative survey and qualitative interviews. We surveyed 72 stakeholders representing those who have stake in health systems and health professions education globally and analyzed 23 interview transcripts. Analyzing data with SPSS and reflexive thematic analysis, we derived a framework to guide the education of health professionals in health system transformation.

Results: Based on the outcomes of a mixed-methods stakeholder consultation, we propose eight elements for a robust framework:

1. Embedded in a Learning Health System
2. Bridging Education and Health Systems
3. A Set of Common Interprofessional Competencies
4. Roles for Health Professionals at Micro, Meso, and Macro Levels
5. Patient and Community Engagement
6. Faculty Training and Education
7. Culture That Supports Transformation
8. Education for Life

Aligned with the Quintuple Aim, our framework aims to enhance health care quality, improve population health, reduce costs, enhance the work-life of health care professionals, and ensure a satisfying patient experience.

Conclusion: This comprehensive approach contributes to the evolution of the education of health professionals for health system transformation. By fostering collaboration between educational institutions and health systems, our proposed framework aims to enhance the preparedness of health professionals for the complexities of modern health care delivery in Canada.

C8.4 - Ideas for change: How Seven Ontario Health Teams aim to modernize home and community care

Presented by: Gayathri Embuldeniya

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Background and Objectives: Seven Ontario Health Teams (OHTs), each a group of cross-sectoral health service organizations collaborating to integrate care, were chosen to lead the modernization of home and community care (HCC). The projects forwarded represent a range of integration modalities and foci, each showcasing different strategies to enable transformation, as OHTs work towards implementation planned for mid-2024. In this presentation, we explore ideas for transformation shared across OHTs and those that were different, informed by model type.

Approach: This research reports on the qualitative component of a mixed-methods evaluation of the seven projects. Projects were grouped based on shared modalities or foci of integration. Data collection included approximately 3 in-depth 1-hour discussions with each program, observations of meetings at different levels (monthly planning meetings at 3 selected OHTs and cross-OHT/system-level meetings) and monthly informal interviews with the 7 OHT leads and a document review. While preliminary meetings began in mid-2023, data collection started in earnest in November 2023. Data were thematically analysed, with a focus on understanding key model components and drivers of change.

Results: Four groups emerged, focusing on either neighbourhood, primary care connectivity, palliative care populations or supporting those in the community with high needs. Across OHTs, transformation was predicated upon changing how clinical team members worked together, reconceptualizing the care coordinator role, sharing information across the care team and enhancing predictability and accountability in service provision. Each model type additionally developed unique change strategies. The primary care model, for instance, emphasized patient-streaming and embedding HCC care coordinators within primary care settings, while the neighbourhood model emphasized the benefits of salaried home care teams and co-location. These differences were informed by the need to address local issues of concern, build on strengths and mitigate challenges.

Conclusion: Identifying the drivers of change allows us to understand how they may change over time. This research has the potential to inform spread and scale of future HCC initiatives by providing a range of ideas for stakeholders to draw on, while assessing what may inform or detract from their success.

C8.5 - Exploring Gaps, Opportunities, Barriers, and Enablers in Malnutrition Policy through Key Informant Interviews: a Qualitative Inquiry from the CANDReaM Initiative

Presented by: Katherine Ford

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Background and Objectives: Disease-related malnutrition (DRM) presents in up to half of adults and one third of children admitted to Canadian hospitals and significantly impacts health outcomes. Strategies to screen, diagnose, and treat DRM exist but policy to facilitate implementation and sustainability are lacking in Canada and globally. The aim of this study was to explore gaps, opportunities, barriers, and enablers for DRM policy.

Approach: As part of Creating Alliances Nationally to address Disease-Related Malnutrition (CANDReaM), an initiative by the Canadian Malnutrition Task Force that builds on the United Nations Decade of Action on Nutrition, a qualitative study was conducted with multi-national key informants in DRM and/or health policy. Purposive sampling identified participants for a semi-structured interview. The health policy triangle framework informs policy outcomes by considering actors, content, context, and processes, and was used to guide this work. Inductive thematic analysis was completed, followed by deductive analysis based on the health policy triangle framework.

Results: DRM policy actors were seen as champions in healthcare, senior leaders in healthcare administration, and individuals with lived experience. Policy content focused on screening, diagnosing, and treating DRM. Key areas related to DRM policy context included system specifics related to setting, cost and capacity, and social determinants of health. DRM policy processes were viewed as cross-sectoral and multi-level governance, mandating and other reinforcement strategies, windows of opportunity, and evaluation and research. Actors, content, context, and processes inform DRM policy, which is viewed as a dominant lever that has the opportunity to accelerate positive change to nutrition care best practices globally, and in Canada.

Conclusion: DRM care has advanced substantially, yet policy-level changes are sparse, and gaps exist. DRM policy content is similar around the globe, enabling synergy of large-scale priorities, however policy is needed at the jurisdictional level to address setting-specific needs.

C8.6 - Health Leaders' Attitudes and Views on the Introduction of Medical Assistance in Dying in Canada

Presented by: Amanda Yee

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Background and Objectives: In Canada, Medical Assistance in Dying (MAiD) was legalized in 2016, transforming health policy and practice on death and dying. There has been limited research on the beliefs and views of health leaders. This qualitative study explored health leaders' attitudes on the legalization of MAiD and identified their perspectives on what factors led to the introduction of MAiD in Canada.

Approach: We conducted online semi-structured interviews with 36 health leaders from April 2021 to January 2022. Interviews were transcribed verbatim, verified, and de-identified. Transcripts were analyzed using thematic analysis, following an inductive approach. The codes were iteratively developed, and ongoing team discussions were held to review and refine themes.

Results: Participants expressed diverse attitudes towards the introduction of MAiD. They highlighted several factors influencing their attitudes, including their religious beliefs, professional work experiences, personal experiences, and value for patient-centred care. Health leaders identified six themes regarding their perspectives about what factors led to the introduction of MAiD in Canada in 2016: (1) policy diffusion (i.e., development of assisted dying policies in other countries); (2) political ideology and landscape in Canada; (3) Canadian judicial system and notable MAiD legal cases; (4) public advocacy and influence; (5) transformation of healthcare towards a patient-centred approach supporting greater patient autonomy and choice; and, (6) changes in societal values.

Conclusion: The study reveals personal, socio-political, and healthcare factors that have shaped participants' diverse attitudes toward the introduction of MAiD. Understanding health leaders' beliefs and views regarding the introduction of MAiD can elucidate the process of developing end-of-life care policy and strengthening healthcare systems.

C9.1 - Improving health system design for people with long-COVID or Post-COVID-19 Condition: Perspectives and experiences of change leaders in Canada

Presented by: Susan Law

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Background and Objectives: Various models are emerging in health systems worldwide to address the care needs of people living with long-COVID (LC). In Canada, recommendations for care have been published by the Chief Science Advisor. However, there is no consensus on an optimal model of care. This study contributes qualitative evidence of progress to date and challenges related to the development and implementation of plans in eight Canadian jurisdictions for improving LC outcomes and experiences of care.

Approach: We adopted a qualitative descriptive design. Potential participants were identified in collaboration with the newly established Long COVID Web national research network and the Canadian Agency for Drugs and Technologies in Health based on prior roundtable meetings to share approaches and experiences. Semi-structured, virtual interviews were conducted with 17 senior decision makers across Canada between March - May 2023. Rapid thematic analysis of transcripts identified common challenges and priorities.

Results: Participants highlighted the need for a dedicated diagnostic code and reliable estimates of the number of people living with PCC. Also highlighted were the need for clinical education and training, better self-management resources for patients, and information and resource sharing across jurisdictions. Smaller jurisdictions and rural areas faced additional challenges due to limited resources. In some jurisdictions, leadership in the development of long COVID care was assumed by nurses and rehabilitation professionals rather than physicians. Patient involvement in developing care pathways was widely variable. Decision makers expressed concern about emerging equity issues in relation to access to PCC care.

Conclusion: Multiple models of care are emerging across Canada with variable levels of investment. Coordinated collaboration and learning across provinces and territories including clinical, patient and policy leaders would benefit all jurisdictions.

C9.2 - Implementation of digital contact tracing in a hospital during the COVID-19 pandemic: Lessons learned

Presented by: Brynn O'Dwyer & Mirou Jaana

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Background and Objectives: During the COVID-19 pandemic, digital contact tracing (DCT) tools were developed to augment contact tracing processes amidst heightened risk of transmissions. Considering the adverse impacts of COVID-19 on health systems, there is a need to explore areas for improving DCT practices, especially in complex healthcare environments. Therefore, this study explores stakeholders' perspectives on a DCT tool used at a specialized pediatric acute-care hospital in Ontario, offering insights to guide future DCT implementation in this context.

Approach: This qualitative study, conducted between December 2022 and April 2023 at the Children's Hospital of Eastern Ontario, utilized the Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) framework to assess impact of DCT. Employing purposeful and snowball sampling, we conducted 21 semi-structured interviews with key stakeholders including healthcare administrators (n=6; 29%), occupational health and safety specialists (n=8; 38%), and HCWs (n=7; 33%). Participants were asked, among other topics, about the significance of DCT, implementation barriers, factors influencing DCT sustainability, and suggested improvements in the implementation process. Verbatim transcripts were subject to thematic analysis (Braun & Clarke, 2006) using NVivo software.

Results: The implementation of DCT was well-received among stakeholders and was perceived to enhance the hospital's pandemic response. Recognizing DCT's positive impact on timely case investigations and decision-making processes, stakeholders highlighted four key themes for future implementation success: (1) Optimizing DCT for end-users, emphasizing user-centric design principles and enhancing access through a multifaceted approach. This also included the availability of different languages within the DCT platform, ensuring mobile compatibility, and providing equitable access for all end-users. (2) Fostering a cultural shift towards infection control through comprehensive training and change management. (3) Efficiently integrating DCT into existing hospital infrastructure and workflows, while adhering to privacy protocols. (4) Promoting cross-collaboration with external entities, such as public health units and regional hospitals, for improved infectious disease management.

Conclusion: This study provides benchmarking evidence, highlighting factors for successful DCT implementation. By offering policy recommendations for infectious disease management, the findings contribute to fostering pandemic preparedness and health system resilience. Lastly, the findings also inform appropriate scale-up initiatives for DCT utilization within the healthcare setting.

C9.3 - Distinctions-Based Perspectives: Red River Métis Citizens' Views of COVID-19 Vaccinations

Presented by: Praneeth Silva

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Background and Objectives: The prevalence of vaccine hesitancy has risen notably amid the persisting COVID-19 pandemic. The Manitoba Métis Federation's (MMF) Health and Wellness Department is actively engaged in a collaborative effort with the Red River Métis Citizens to enhance culturally tailored awareness and facilitate heightened coverage of COVID-19 vaccinations. This initiative aims to analyze perceptions toward COVID-19 vaccination, refining public health communication to alleviate vaccine hesitancy and elevate immunization rates within the Red River Métis Community.

Approach: Utilizing a mixed-methods approach grounded in Community-Based Participatory Research (CBPR), this study systematically investigated vaccine hesitancy within Red River Métis Citizens across the seven MMF Regions in Manitoba. A self-administered cross-sectional survey was employed, encompassing demographic information, vaccination status, attitudes towards vaccinations, and perspectives on COVID-19 booster shots. Complementary region-specific focus groups were conducted to delve into concerns regarding COVID-19 booster vaccines. Thematic analysis was applied to audio-recorded and transcribed focus group discussions, providing a comprehensive exploration of the subject.

Results: In our investigation, 144 Red River Métis Citizens participated in the survey, with 300 engaging in focus group discussions. Among survey participants, 77% (n=111) reported receiving a COVID-19 vaccination, 12% (n=17) expressed willingness to receive a booster, 6% (n=9) were reluctant, and 5% (n=7) did not respond. Approximately 20% (n=29) lacked confidence in COVID-19 booster safety, while 24% (n=35) distrusted them due to concerns about rapid development. Notably, 78% (n=112) believed that “COVID-19 vaccination protects the Community”. Survey responses revealed that 50% (n=72) hesitated to “trust vaccine-producing pharmaceutical companies”, and 63% (n=91) were “skeptical of media sources”. Focus group discussions highlighted crucial factors contributing to vaccination hesitancy, including information gaps, limited access in remote areas, technical language, fear-based communication, constrained choices, and trust-related issues.

Conclusion: This study explores Red River Métis Citizens' perspectives on vaccine-based immunization to enhance overall health and wellness. In embracing distinctions-based approaches to research and healthcare for reconciliation, outcomes will inform a Red River Métis specific immunization strategy. Emphasis will be on effective public health information distribution and future vaccine campaigns.

C9.4 - Tailoring COVID-19 Vaccination Strategies for Priority Populations: Methodological Insights from Community-Based Behavioural Research

Presented by: Maureen Smith & Justin Presseau

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Background and Objectives: Promoting the uptake of vaccination for COVID-19 remains a global challenge, necessitating collaborative efforts between public health units (PHUs) and communities. Applied behavioural science can support PHUs' response by providing insights into human behaviour and informing tailored strategies to enhance vaccination uptake. This study focused on developing and applying an approach to conducting community-based behavioural science research with ethnically and socioeconomically diverse populations to guide PHUs in tailoring their strategies to promote COVID-19 vaccination.

Approach: A community engagement methodology was developed based on integrated knowledge translation (iKT) and community-based participatory research (CBPR) principles. The study involved collaboration with PHUs and local communities in Ontario, Canada to identify priority groups for COVID-19 vaccination, understand factors influencing vaccine uptake and co-design strategies tailored to each community to promote vaccination. Community engagement was conducted across three large urban regions with people from Eastern European communities, African, Black, and Caribbean communities, and low socioeconomic neighbourhoods.

Results: We developed and applied a seven-step methodology for conducting community-based behavioural science research: (1) aligning goals with system-level partners; (2) engaging with PHUs to understand priorities; (3) understanding community strengths and dynamics; (4) building relationships with each community; (5) establishing community advisory groups; (6) involving community members in the research process; and (7) feeding back and interpreting research findings. Research partnerships were successfully established with members of prioritized communities, enabling recruitment of participants for theory-informed behavioural science interviews, interpretation of findings, and co-design of tailored recommendations for each PHU to improve COVID-19 vaccination. Lessons learned include the importance of cultural sensitivity and awareness of sociopolitical context in community engagement, being agile to address evolving PHU priorities and building trust to achieve effective community engagement.

Conclusion: An approach tailored to the needs of each community was developed and applied. This acknowledges the diversity of communities, recognizes the central role of PHUs, and can help in addressing complex public health challenges. Effective community engagement in behavioural science research can lead to more inclusive and representative research.

C9.5 - Public health organizational structure in the response to the Covid-19 pandemic: a comparative study of four Canadian provinces

Presented by: Susan Usher

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Background and Objectives: This qualitative study aims to describe and compare the organization of public health systems in four Canadian provinces and its evolution during the Covid-19 pandemic. It is part of a larger collaborative study involving five Canadian universities to examine how institutions, politics, organisation, and governance (IPOG), influenced pandemic responses. This work aims to inform efforts to improve the organization of public health systems to address both ongoing challenges and crises.

Approach: Data were collected concurrently in BC, Ontario, Quebec and Nova Scotia, to produce 1) organizational charts of public health systems, their pre-pandemic structure and new organizations created during the pandemic; 2) timelines of policy responses, with a focus on the regulation of public spaces and testing policies. Semi-structured interviews were conducted with key informants from health systems, and other areas of government and sectors involved in pandemic response. Each provincial team integrated these datasets into narrative accounts, using a common template, of responsibilities and relations between formally identified public health organizations, and their relationships with other stakeholders, during the pandemic.

Results: Comparative analysis based on case narratives suggests several strong common tendencies along with certain differences that relate to the starting structures of provincial public health systems. All four provinces created new temporary organizations during the pandemic, with differences in how formally named public health actors were integrated and connected to these structures. A centralizing tendency is seen in all four provinces around pandemic decision-making, however the more-or-less hierarchical starting structures in place appear to impact regional and local influence on the nature, scope, duration, and adaptation of pandemic measures. Differences appear in the connections between decision-making authorities and both implementation authorities and external stakeholders, influencing the fluidity of response and the balance in focus between public health pandemic priorities and other societal goals.

Conclusion: The starting structure of public health differs across provinces and influences organizational and decision-making dynamics seen in response to the Covid-19 pandemic. Variations across provinces and their implications enable some recommendations around how public health systems might be strengthened for future health crises and progress on other public health priorities.

D1.1 - Use of the enhanced 18-month well-baby visit to improve the timeliness of developmental delay identification in Ontario, Canada: a population-based cohort study.

Presented by: Tharani Raveendran

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Background and Objectives: Developmental delays are defined as slowed progression through predictable developmental phases resulting in not reaching expected milestones. In Ontario, Canada, routine well-baby care may be provided at 18 months using either a structured neurodevelopmental screening with incentive payment (enhanced visit) or as a routine assessment. We sought to measure whether a difference exists in time to the identification of developmental delays among children who received an enhanced compared to a routine 18-month well-baby visit.

Approach: Using health administrative and demographic databases, we conducted a cohort study of all healthy, developmentally typical children (17-22 months) in Ontario who received an 18-month well-baby visit (March 2020-March 2022) and followed to September 2022. Using physician billing codes, 18-month visits were categorized as enhanced (n=83,554) or non-enhanced (n=15,723). Outcome was age at identification of developmental delay in outpatient records. We used Cox models with time-varying effects, modeling the log-hazard ratio as a function of time using restricted cubic splines. This enabled calculating hazard ratios (aHR) with 95% CIs to compare time to identification of developmental delay by visit type.

Results: The mean age at visits was 18.6 months (SD 0.9) (enhanced) and 18.5 months (SD 1.1) (non-enhanced). Children living in higher income quintile neighborhoods (20.5% vs. 17.4%) and with primary care pediatricians (26.0% vs. 15.6%) had greater proportions in the enhanced group. Mean age at identification of developmental delay was 26.2 months (SD 6.2). After adjusting for sociodemographic, maternal, and provider factors, compared to those with non-enhanced visits, children with an enhanced visit were more likely to have developmental delays and these were identified earlier (1-month, aHR 1.34 95%CI 1.22, 1.47; 2-months, aHR 1.26 95%CI 1.16, 1.35; 3-months aHR 1.18, 95%CI 1.11, 1.25; 4-months aHR 1.11 95%CI 1.05, 1.17). At five months after their 18-month visit, developmental delay identification was similar between groups.

Conclusion: Enhanced 18-month well-baby visits are associated with an earlier age at identification of developmental delays compared to routine visits. Differences in identification dissipate by five months after assessment. Findings suggest using enhanced developmental screening tools at this critical milestone may facilitate earlier recognition of developmental concerns and support earlier intervention.

D1.2 - Changes in family physicians' area of practice in Ontario from 2017 to 2021

Presented by: Lyn Sibley

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Background and Objectives: A factor contributing to the crisis in access to primary care is a decrease in the percentage of family physicians who practice comprehensive primary care. There is currently no accepted way to measure and track which areas of practice that physicians are moving into. The objective of this study was to develop a methodology for classifying family physician AOP and to assess how the distribution of these clinical focus areas has changed over time.

Approach: Using Ontario physician billing data submitted by FPs in fiscal years 2017/18 and 2021/22 we categorized the AOP of each FP visit. We also assigned an FTE weight to each visit. The number of FTE adjusted visits were summarized by AOP for each physician to assess which areas they practice in. The AOPs that were assessed include: primary care, COVID, emergency medicine, palliative care, long-term care, addictions treatment, anaesthesia, surgical assistance, mental health care, hospital-based care, pain management, obstetrics, and sports medicine. Our approach recognizes that physicians can practice in more than one practice area.

Results: There were 16,111 FPs practicing in Ontario in 2021/22, which was an increase of 9% since 2017/18. Over the same time the total number of FTE adjusted visits increased by 7% and the number of FP visits that were for primary care increased by 4%. In 2021/22 there were 7,712 physicians who practiced only community based primary care, while in 2017/18 there were 7,706. The number for 2021/22 would likely have been larger if not for the impact of COVID on family physician practices. In that year there were 3,654 physicians who practiced in both primary care and one other AOP. COVID was the most common AOP paired with primary care (1,203), followed by hospitalists (544), long-term care (530), and emergency medicine (492).

Conclusion: It is possible to reliably classify family physicians' areas of practice using administrative health data. When assessing the supply of primary care physicians for the purposes of health human resource planning, it is important to recognize physicians who divide their time between primary care and other AOPs.

D1.3 - Effect of a socio-geriatric pre-consultation tool for older adults in primary care: Results from a randomized controlled trial

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Background and Objectives: Pre-consultation questionnaires designed to provide rapid assessments of the physical, social, mental and cognitive health of older adults may support effective primary care management and improved patient outcomes for this population. This pilot study sought to evaluate the effectiveness of ESOGER (Socio-Geriatric Evaluation) as a pre-consultation tool in improving patient outcomes for older adults in primary care as compared to usual care.

Approach: We randomly allocated 452 adults 65+ from four university-affiliated family medicine groups in Quebec, Canada to be administered the ESOGER questionnaire prior to their consultation or to receive usual care. For participants in the intervention group, an automatically-generated summary report of ESOGER was placed in their electronic chart prior to consultation. We collected baseline and 3-month follow-up data through phone-based questionnaires. The primary endpoint consisted of the difference in the EQ-5D health-related quality of life score at 3-month follow-up. Secondary endpoints were visits to the emergency department and hospitalizations in last 3 months. An intention-to-treat analysis was carried out (ClinicalTrials.gov#NCT05102890).

Results: Participant mean age was 74.7, 58.4% were women and 75% completed the follow-up assessment. The 3-month change in EQ-5D was 10% higher in the intervention group than in the control group but was not statistically significant (OR [95%CI]: 1.1 [0.9, 1.4]). No significant change in visits to the emergency department (OR = 1.33, 95% CI [0.62, 2.83]) or hospitalizations (OR = 2.36, 95% CI [0.75, 7.90]) in the intervention vs control group were observed.

Conclusion: No improvement in patient outcomes was found 3 months following the implementation of the ESOGER tool. Future work will report on patient and provider perspectives as well as barriers and facilitators to implementation in the current primary care context.

D1.4 - Expérience des médecins de famille avec la téléconsultation synchrone en soins primaires : une revue systématique des méthodes mixtes

Presented by: Alphonse Sowanou

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Background and Objectives: La pandémie de COVID-19 a accéléré l'utilisation de la téléconsultation en soins primaires. Pour atteindre les quatre objectifs de santé, la téléconsultation doit répondre à la satisfaction des omnipraticiens. Cependant, les préférences des omnipraticiens quant aux modalités de consultation, notamment le présentiel, la vidéoconférence et le téléphone, sont inconnues. L'objectif de ce travail en cours est de dresser un inventaire des différents facteurs affectant l'expérience des omnipraticiens avec les modalités de consultation à l'échelle mondiale.

Approach: Cette revue systématique est basée sur "Preferred Reporting for Systematic Reviews and Meta-Analyses (PRISMA)" guide. Les publications ont été identifiées dans PubMed, Web of Science, Cochrane, et EBSCO, depuis leur création à septembre 2023. La sélection d'articles a été effectuée dans l'outil Covidence par six reviseurs, avec au moins deux reviseurs par article. Nous avons sélectionné selon nos critères d'inclusion, des articles en anglais/français, en lien avec l'utilisation, l'attitude, la satisfaction et l'expérience des omnipraticiens (médecin-généraliste/médecin de famille) avec la téléconsultation. La qualité des articles retenus sera évaluée en utilisant l'outil d'évaluation des méthodes mixtes de Hong et collaborateurs (2019).

Results: Les résultats préliminaires sont les suivants. Nous avons récupéré un total de 8561 articles après suppression des doublons. Nous avons ensuite trié les articles par titre et résumé pour aboutir à 650 articles, dont l'examen sur texte intégral par l'application des critères d'éligibilité a permis d'inclure 37 articles pour l'extraction. Les résultats attendus sont : la description des facteurs importants pour les omnipraticiens dans leur expérience des diverses modalités de consultation et l'établissement d'une liste de caractéristiques qu'ils valorisent dans leur processus de choix de modalité. Ces résultats permettront de comprendre les facteurs qui pousseraient les omnipraticiens à préférer une modalité de consultation à une autre.

Conclusion: Cette étude explore et décrit les facteurs déterminants dans le choix de modalité de consultation chez les omnipraticiens. La connaissance potentielle de ces éléments permettra d'améliorer les pratiques de consultation en soins primaires en les centrant sur les besoins des usagers pour promouvoir l'équité et les quatre objectifs de santé.

D1.5 - Characteristics of Walk-in Clinic Physicians and Patients in Ontario, Canada: A Cross-Sectional Study

Presented by: Lauren Lapointe-Shaw

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Background and Objectives: Though walk-in clinics commonly provide episodic care to patients with and without a regular family physician, little is known about the physicians who work in these settings. We aimed to describe family physicians who primarily practice in a walk-in clinic setting and compare them to family physicians who provide longitudinal care.

Approach: A cross-sectional study that linked results from an annual physician survey (2019) to administrative healthcare data from Ontario, Canada. We compared the characteristics, practice patterns, and patients of physicians primarily working in a walk-in clinic setting, with family physicians providing longitudinal care.

Results: Compared to the 9,137 family physicians practicing longitudinal care, the 597 physicians who self-identified as practicing primarily in walk-in clinics were more frequently male (67% vs. 49%) and could speak a language other than English or French (43% vs. 32%). Walk-in clinic physicians had more encounters with patients who were younger (M 37 vs. 47 years), had lower levels of prior healthcare utilization (15% vs. 19% in highest band), who resided in large urban areas (87% vs. 77%), and in highly ethnically diverse neighborhoods (45% vs. 35%). Walk-in clinic physicians had more encounters with unattached patients (32% vs. 17%) and with patients attached to another physician outside their group (54% vs. 18%).

Conclusion: Physicians who primarily work in walk-in clinics saw many patients from historically underserved groups, and many patients who were attached to another family physician. Integrating walk-in clinics with longitudinal primary care practices could support rapid access while maintaining care continuity.

D2.1 - From the heart: Canadian women's lived experiences of heart failure

Presented by: Heather Lannon & Susan Law

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Background and Objectives: Women with heart failure (HF) are under-served, under-researched, under-diagnosed and experience poorer outcomes versus men. Listening to women talk about their experiences of HF and challenges in navigating the healthcare system, can help others in their situation and can inform service improvement. This project will produce an online resource, in collaboration with patients and clinicians, sharing women's narratives with advice for others and for policy and practice improvement.

Approach: Using a qualitative descriptive approach, we interviewed women living with HF from 7 provinces (BC, ON, QC, NS, MB, NL, AB). Interviews were conducted virtually in English or French using video and/or audio recording, and with open narrative and semi-structured questions. Transcribed interviews were analyzed to identify topics of importance to women living with HF. Guided by an Expert Advisory Panel (including patients, clinicians and scientists), we will release a public-facing web module, featuring video/audio clips and trusted resources on topics important to women living with HF. A two-step consent process was adopted for public sharing of results.

Results: 30 Canadian women shared their stories of living with HF; some were born with cardiac issues, while others developed HF secondary to other illnesses (e.g. cancer, heart attack, stroke). The diagnosis of HF is difficult - women may not be told or realize the meaning or impact of the diagnosis. Living with HF can impact daily life, relationships, work, finances, identity and outlook on life. Women are required to learn and make decisions about complex interventions, medications, devices and surgeries, while navigating a system that limits access, and makes them feel ignored and stigmatized for being a woman. They learn to cope with HF by self-managing diet, fluid intake, monitoring activity & symptoms and by building supportive networks and advocating for themselves and each other.

Conclusion: No such resource featuring the personal narratives of people with lived experience of HF currently exists in Canada or elsewhere and this will contribute information and support for this underserved group. The results will add to existing collections of Canadian Health Experiences Research program on www.healthexperiences.ca

D2.2 - Interviewing people with traumatic experience: an approach to preparing qualitative researchers for an international Ukrainian refugee project

Presented by: Susan Law

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Background and Objectives: The invasion of Ukraine by Russia in 2022 has led to the global displacement of approximately 6.3 million Ukrainians to date. Yet evidence regarding their lived experience of transition and resettlement or of their health and social care needs has been limited. Canada pledged to welcome an 'unlimited number' of Ukrainians fleeing the war, and our qualitative research team launched a small pilot project to learn from their experiences.

Approach: Several of our international collaborators (www.dipexinternational.org) were also interested in conducting pilot interviews with this group in their countries, and were also concerned about preparedness and sensitivity aligned with a trauma-informed approach to interviewing. The Canadian team led the development of a single 3-hour training session for any/all researchers involved. The content was developed with a Ukrainian refugee now studying in Canada, physicians caring for this population in Montreal, and two psychologists - one of whom trains humanitarian workers in crisis situations.

Results: This pilot training session included an overview of information about the socio-cultural context in Ukraine pre-war, the impact of the Russian-Ukrainian war, psycho-social and cultural considerations in a trauma-informed approach to interviewing, and role play with an actor to help interviewers reflect on potential scenarios and appropriate responses in light of the course content. The discussion following the scenarios regarding 'what [the interviewer] should/could do next' was highly instructive and sparked practical and valuable reflections for researchers. Together with three other country-based teams, we have now submitted a proposal for a larger comparative grant to conduct cross-national analyses of Ukrainian refugee experiences. If successful, we hope to extend the training to all involved in this project, including students, research staff and clinical team members.

Conclusion: Research teams preparing for qualitative interviews with people who have lived experience of trauma need to consider carefully the perspectives and socio-cultural context of the country of origin for the displaced persons, as well as their own limitations and assumptions. There are benefits of cross-country training opportunities in learning together.

D2.3 - Inequalities in transitions to home care: a longitudinal analysis of the Canadian Longitudinal Study on Aging

Presented by: James Lee

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Background and Objectives: As the Canadian population ages, there is an increasing demand for services that allow adults to age in their homes. Although home care services are essential to aging in place, previous studies have demonstrated inequitable access to home care resources in Canada, leading to disadvantaged aging. In this study, we investigated whether Canadians experience inequalities in transitions to home care across a broad set of demographic and socioeconomic factors.

Approach: We conducted a longitudinal, retrospective cohort study of 51,337 community-dwelling adults aged 45+ using data from the Canadian Longitudinal Study on Aging (CLSA) across three time points (2010-2021). We analyzed transitions in home care use using a multi-state Markov model, with home care use and non-use as transient states, and death/loss to follow-up as an absorbing state. We calculated adjusted hazard ratios for transitions between states adjusting for factors related to home care need (i.e. functional limitations, chronic conditions) within the following equity stratifiers: income, education, immigration history, sex, gender, rurality, racial background, and functional social support.

Results: Across all timepoints, 5.4% of non-home care users transitioned to home care on the next timepoint and 33.2% of home care users continued to use home care at the next timepoint. Among non-home care users, being a woman, female, white, completing greater levels of education, and having higher income significantly increased their likelihood of transitioning to home care use, compared to their counterparts. Functional social support, rurality, and immigration history were not significantly associated with transitioning to home care use. Home care users who had greater income were significantly less likely to continue using home care compared to lower income users. All other equity stratifiers were not significantly associated with home care use.

Conclusion: Our study found meaningful differences in home care transitions across equity strata. Individuals with higher income likely access greater care at lower levels of need while also having less long-term needs than lower income individuals. Home care policies must address disparities in access to home care to enable equitable aging.

D2.4 - Adherence, acceptability, and feasibility of clinical poverty screening in a Canadian primary care clinic: Findings from a concurrent mixed-methods implementation study

Presented by: Alison Luke

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Background and Objectives: While poverty is a risk factor for many chronic conditions, when it is recognized by care providers they can use social screening to positively impact patients' health. Although there has been Canadian research on this topic, there have been no such studies in New Brunswick (NB). This study fills this knowledge gap by asking: What is the adherence, acceptability, and feasibility of poverty screening administered by providers to patients of an NB primary care clinic?

Approach: Using an NB-specific clinical poverty screening tool, poverty screening was conducted by family physicians and nurse practitioners with adult patients over a one-month period in 2023 at the St. Joseph's Primary Care Clinic in NB. For patients who screened positive, providers were asked to intervene by providing a package of handouts and relevant referrals. Research data was collected from patients following the visit using a survey and medical records, and from providers using pre- and post-intervention surveys, a focus group, and screening records. The quantitative data was analyzed using descriptive statistics and the qualitative data is undergoing inductive thematic analysis.

Results: A total of n = 4 practitioners participated in the study, survey data was collected from n = 59 patients, and medical records were pulled from n = 246 patient charts. Of the n = 389 eligible patients who were seen by participating providers during the intervention period, 63.2% were screened for poverty and of these 38.2% screened positive. The most common reason for missed screens was forgetfulness (53.1%). Of patients who were screened, 94.4% reported feeling "very comfortable" or "comfortable." Prior to the implementation period, the majority of providers were "very willing" to screen. Following the implementation period, providers rated poverty screening as less feasible. Early qualitative results show providers pointing to the need for an in-house social worker who can intervene with patients who screen positive.

Conclusion: Poverty screening was seen as acceptable among patients and providers. Providers, however, have concerns about its feasibility in a clinical setting with limited resources dedicated to social interventions. Results will be used to determine the potential for continued and expanded screening as well as to inform changes to screening protocols.

D2.5 - Quantifying health inequities in Ontario's local health systems using multiple statistical measures.

Presented by: [Jessica Morgan](#)

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Background and Objectives: A crucial step towards reducing inequity in health systems is incorporating equity measurement into routine health system performance monitoring. This study aimed to investigate measures that can be used to summarise inequities at the local health system (LHS) level. The objectives were: 1) quantify inequities within LHSs using multiple statistical measures, and 2) compare the levels of inequity described by each measure to each other and to the unstratified indicator rate of the LHS.

Approach: This study investigated inequity measurement in LHSs using the province of Ontario, Canada as a focal example. The Slope Index of Inequality (SII), the Relative Index of Inequality (RII), the Absolute Gradient Index (AGI), and the Relative Gradient Index (RGI) were used to measure inequities in hospitalisations for ambulatory care sensitive conditions (ACSCs) across levels of material deprivation in Ontario Health Teams (OHTs). ACSC hospitalisation rate and measures of material deprivation at the level of aggregate dissemination areas were used in the calculations of inequity. ACSC rates were age-sex-standardised and measured from April 1, 2021, to March 31, 2023.

Results: The SII, RII, AGI, and RGI identified health inequities in all but one OHT when applied to ACSC hospitalisations in the attributable population of OHTs. This study also demonstrated that the level of inequity measured in an OHT, relative to others, could vary depending on the measure used. This variation was more present in OHTs whose attributable population was concentrated in either extreme of the material deprivation scale. When the four measures of health inequity were plotted against the unstratified rate of ACSC hospitalisations for each OHT, there was a positive correlation between high inequity and high rates of ACSC hospitalisations. This trend was consistent across the four measures with a Pearson correlation coefficient ranging from 0.45 for the RII to 0.78 for the SII.

Conclusion: This study provides a baseline measure of inequity in ACSC hospitalisations in the attributable populations of OHTs. The findings of this work can be used to support the implementation of equity measurement at the local health system level in Ontario.

D3.1 - Unplanned early leaves from inpatient mental health among individuals with trauma in Ontario, Canada

Presented by: Danielle Fearon

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Background and Objectives: Among individuals with trauma, substance use is common; and has been associated with adverse outcomes. Legislation allows for the right to care, but also the right to refuse or leave treatment. Care needs may not be effectively addressed among individuals with incomplete care. Early leaves have been associated with increased health care costs, and readmissions. This study examines substance use, social relationships and early leaves among individuals with trauma in inpatient care.

Approach: Data were included for individuals aged 18 years or older with an inpatient admission between January 1, 2015 to December 31, 2019 (N=11,043). Inclusion required the experience of recent or prior trauma that invoked a sense of horror or fear. An early leave variable was derived to reflect discharge status. Unplanned early leaves were defined as discharges due to an absence without an approved leave where the person did not return to hospital, and persons discharged against medical advice. Multivariable logistic regression modelling was used to assess the association between baseline characteristics, substance use variables, social relationships, and discharge status.

Results: Unplanned early leaves occurred in 3.78% (N=417) of the inpatient population. In the final adjusted model, individuals with poly substance use were 2.39 times (95% CI: 1.84-3.11) more likely to have unplanned early leaves from their inpatient stays. Persistent hostility towards staff (adj. OR: 1.84, 95% CI: 1.25-2.72) and staff reporting frustration with the patient (adj. OR: 1.66, 95% CI: 1.15-2.39) both increased the likelihood of an unplanned early leave. Other factors such as being aged 65 or older, and being employed were protective factors, reducing the likelihood of unplanned early leaves.

Conclusion: Unplanned early leaves can reflect unmet care needs. Complex care needs of individuals with trauma and substance use may be better supported by longer-term or specialized treatment programs able to effectively treat both trauma and substance use. Reducing barriers to accessing mental health services may reduce acute inpatient treatment.

D3.2 - Trends in Mental Health and Substance Use Related Visits for Physicians Over Time

Presented by: Maya Gibb

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Background and Objectives: Physicians are well documented to report high levels of burnout and mental health concerns. There have been growing discussions, which intensified during the COVID-19 pandemic, about the adverse state of physician mental health. Despite anecdotal reports that physician mental health worsened over time, limited longitudinal data on this topic exists. This study aims to explore how mental health visits by physicians have changed over time and whether changes vary according to career stage or specialty.

Approach: We conducted a population-based repeated cross-sectional study in Ontario, Canada from July 1st, 2003, to June 30th, 2018. We linked all physicians registered with the College of Physicians and Surgeons of Ontario from 1990-2018 to health-administrative data from ICES. We classified physicians by career stage as medical students, residents, early-career (first 5 years in practice), and mid-career (5-15 years). Our primary outcome was outpatient mental health and addictions (MHA) visits by a physician to a psychiatrist or primary care provider. Linear regression models examined annual percent changes in the proportion of physicians with 1+ MHA visits in the past year.

Results: Our cohort included 45,835 unique physicians who incurred 345,672 total outpatient MHA visits from 2003-2018. On average, 12.2% of physicians had one or more MHA visits, with female physicians having nearly twice the rate (15.5%) than males (9.1%). From 2003-2014 the proportion of medical students with 1+MHA visits in the past year decreased from 19.82% to 17.71% (average annual percent change (AAPC) of -0.21% (95% CI: -0.425, -0.006)). From 2003 to 2018, the proportion of 1+MHA visits among physicians in the past year changed from 13.56% to 16.57% [AAPC of 0.13% (95% CI: 0.002, 0.259)] for residents, 9.71% to 13.14% [AAPC of 0.11% (95% CI: 0.022, 0.205)] among early-career physicians, and 10.52% to 11.5% [AAPC of 0.05% (95% CI: 0.013, 0.087)] for mid-career physicians.

Conclusion: Study results suggest that before the COVID-19 pandemic, mental health service use trends among physicians were relatively stable over a 15-year period. These findings suggest that the mental health crisis of physicians may not be new, and rather, may be the product of growing conversation and de-stigmatization of mental health.

D3.3 - Exploring 2SLGBTQ+ University Students' Experiences Accessing Mental Health Services and Supports

Presented by: Meggie Gilmour

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Background and Objectives: This study aims to explore 2SLGBTQ+ (Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, +) university students' experiences accessing mental health (MH) services and supports and gather their suggestions for improvement. Existing descriptive research highlights a high prevalence of MH issues among 2SLGBTQ+ university students and barriers in accessing MH services and supports. The limited research on the topic highlights experiences of stigmatization, pathologization, lack of provider 2SLGBTQ+ knowledge, and the importance of friend and family support.

Approach: This qualitative research is being conducted through semi-structured interviews with 2SLGBTQ+ university students. The transcripts are analyzed with an interpretative lens using Braun and Clarke's (2006) six-step thematic analysis process. This involves developing initial codes both deductively and inductively, grouping the codes into potential themes, reviewing these themes at the level of the coded extracts and complete data set, and generating a thematic map of the analysis. Relevant components of Meyers (2003) Minority Stress Theory will be used as a theoretical framework throughout analysis of the data and participant feedback will be sought to enhance credibility of the study.

Results: Analysis is currently ongoing. In-line with Meyer's Minority Stress framework, participants elaborate on experiences of stigmatization and discrimination, which have exacerbated Proximal Minority Stress Processes, such as concealment and expectations of rejection, impacting MH negatively. Participants describe experiences of feeling deterred from seeking MH support for challenges related to self-discovery/acceptance, transitioning, and relationships when there are expectations of rejection or an anticipated lack of understanding from providers, family members, or friends. The benefits of social support have been emphasized, with University enrollment acting as a significant facilitator, enabling trusting relationships with individuals - typically other students - who share both 2SLGBTQ+ and MH-related experiences, impacting MH positively. Individuals feel encouraged to seek MH help from 2SLGBTQ+-identifying/informed practitioners, in visibly 2SLGBTQ+-friendly environments, and from peers with shared experiences.

Conclusion: Expected contributions of this study include greater understanding of 2SLGBTQ+ university students' MH service and support experiences through a Minority Stress Theory lens. Suggestions for improvement include advancing providers' 2SLGBTQ+ education, establishing a university peer support program, and expanding student and staff awareness of 2SLGBTQ+ and MH resources.

D3.4 - Partnering Together for Integrated Person- and Family-Centric Care Across the Mental Wellness Care Continuum: Stepped Care 2.0 in the Northwest Territories.

Presented by: Danielle Impey

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Background and Objectives: Describe and explain the SC2.0 model, implementation and identify lessons learned of a collaborative partnership between the Mental Health Commission of Canada, Stepped Care Solutions and the Government of the Northwest Territories. This initiative sought to reduce wait times and improve access to services that are responsive, culturally safe, person- and family-centric, and recovery-oriented.

Approach: SC2.0 implementation involved collaborative partnerships, and a phased multi-pronged approach using implementation science, including:

- Involvement of leadership, providers, and service users
- Project planning and management
- Training and information
- Communication, engagement, and feedback.

A mixed methods evaluation focused on: Reach (services offered and used), Impact (satisfaction and wait times), and Lessons learned (enablers and barriers). Quantitative and qualitative information was collected from service users, providers, and system leaders.

Results: SC2.0 helped to increase the variety and flexibility of mental wellness and substance use services for NWT residents—in person, by phone, and online. Wait lists and precursors to care were eliminated. Wait times for mental wellness counselling/therapy were reduced by 79%. Focus groups with system leaders show that since barriers have been reduced, people are able to access services faster. Service users surveyed were satisfied or very satisfied with the wait time for counselling.

Service users felt that care was person- and family-centric, being satisfied or very satisfied with their involvement in decisions about their counselling experience and with the information provided to them. The NWT continues to strengthen their system of care through the lessons learned.

Conclusion: The NWT continues to build upon the system changes listed above and strengthen their system of care through the lessons learned, which can be of great benefit to other jurisdictions.

D4.1 - The Use of Contribution Analysis in Evaluating Health Services and Policies: A Scoping Review

Presented by: David Buetti

All Authors: *Cassandra Barber¹, Patrick Labelle², Isabelle Bourgeois², David Buetti³, Michael Fitzgerald³, Erin Cameron⁴, Karen Kerk⁵, Claire Kendall^{2, 3}, Tim Aubry²*

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Background and Objectives: Given the complexity of health services and policies, traditional evaluation methods pose some challenges, particularly in capturing complex interactions and indirect effects. Contribution analysis (CA), a theory-based evaluative approach, offers a promising alternative. It makes it possible to measure the impact of interventions and to deepen our understanding of the mechanisms underlying them. Our study examines the potential of CA in health services and policy, a field that has yet to be fully explored.

Approach: We conducted a scoping review using Arksey & O'Malley's framework (2005) and Peters et al.'s guidance (2020). Our comprehensive search strategy, applied across 15 databases, identified peer-reviewed articles from 1999 to 2023 focusing on the use of CA for evaluating health services and policies. We implemented a rigorous double-screening process for abstracts and triple-screening for full-text papers. We then narratively synthesized the extracted data, detailing the specific approaches and adaptations used in applying CA, the methods and procedures followed, the stakeholders involved, and the strengths and limitations of CA in the health context.

Results: Our review identified seven relevant studies, illustrating the use of CA in a variety of settings, such as health promotion programmes, health policy, and specific issues such as nutrition, cardiovascular disease, and substance abuse. Studies have highlighted the benefits of CA, including its flexibility, its ability to inform decision-making, and its potential to improve understanding of the impacts of health services and policies. However, challenges have been identified, such as determining appropriate levels of evidence and optimal management of resource intensity. The limited number of studies and variability in the description of processes and methods suggest that CA is still a developing approach.

Conclusion: Our review underscores that CA, despite its considerable potential, remains underutilized in health evaluations. The observed variations in study methodologies and reporting suggest a need for standardization in assessing and applying CA, enhancing its potential for health services and policy evaluation.

D4.2 - The Development of a Pan-Canadian Data-Analytic Service for Knowledge Users

Presented by: Raquel Duchen

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Background and Objectives: Health Data Research Network Canada is a distributed network of people and member organizations working together to help Canada derive more—and more equitable—public benefits from data. Current infrastructure provisions data for academic research. With funding from Health Canada, HDRN Canada, in partnership with the Canadian Agency for Drugs and Technologies in Health (CADTH) is developing a data service to support non-academic Knowledge Users (KUs) requiring timely, pan-Canadian evidence to inform decisions.

Approach: To design the service, we are: 1) consulting with data centres, privacy/legal experts, university and government officials and KUs to understand barriers and enablers to serving pan-Canadian health sector organizations with data analytics, 2) undertaking two multi-regional use cases to drive service design, 3) completing a provincial/territorial legislative and policy scan regarding use of health administrative data for research, quality improvement, and health system planning, management and evaluation, 4) facilitating a workshop with internal and external stakeholders on core elements of the service and 5) developing a roadmap to scale and business model to plan for growth and sustainability.

Results: KUs face unique barriers arising from the fact that structures, and regulations related to data access and use are set at multiple university and government institutions and are primarily designed for academic researchers. However, KUs also face many similar issues to researchers including: variations in jurisdictional regulations and policies making harmonized and streamlined processes challenging; lengthy data access and ethics review processes; limited staff capacity; variations in data availability by jurisdiction. Identified enablers include: recognized demand for this service; multiple regional and national initiatives already underway to streamline ethics reviews for multi-jurisdictional research; diverse expertise and initiatives across HDRN Canada to leverage (e.g., analytic expertise, data acquisition and harmonization).

Conclusion: The proposed service, once implemented, will leverage current research infrastructure to provide data analytics for pan-Canadian and regional knowledge users to inform planning, provision of services, policy, or program development. Further, mitigating barriers faced by KUs to accessing data analytics can improve researcher-related processes by addressing common issues.

D4.3 - Potentially Avoidable Emergency Department Visits: For Primary Care Sensitive Conditions (PCSCs) and those PCSCs amenable to virtual care.

Presented by: Norma Hall

All Authors: *Sunita Karmakar-Hore¹, Melanie-Josée Davidson¹, Norma Hall¹, Kris Beking¹*

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Background and Objectives: Emergency departments (ED) have been straining under the burden of excessive caseloads while access to family health services in the community has become a Canada-wide challenge. In response, the Canadian Institute for Health Information (CIHI) has developed two Pan-Canadian health system indicators to measure and monitor the percentage of ED visits that could potentially have been managed in the community, including those that could be managed through virtual primary care.

Approach: In partnership with clinicians and health system experts, CIHI developed a list of Virtual Primary Care Sensitive Conditions (V-PCSC) and validated a PCSC list that was previously developed in partnership with the Health Quality Council of Alberta. A literature review and analysis of CIHI's National Ambulatory Care Reporting System guided the incorporation of these conditions lists into the indicator formulae. Results were calculated for non-emergent ED visits for (V-) PCSCs where persons were discharged home, as a percentage of total unscheduled ED visits. Risk adjustment methodology facilitated pan-Canadian comparability. The indicator will evolve as best practices, provider skills, and technologies advance.

Results: Results were calculated for 2022-2023 at a national, provincial/territorial, and regional level based on patient residence, as well as by hospital for more localized actionability and interpretation. In Canada, 1 in 6 visits to an ED is for a PCSCs and 1 in 10 is for a V-PCSCs. We see substantial variability across the country with risk adjusted results by province/territory ranging from about 12% to 24% for PCSCs and from 7% to 15% for V-PCSCs. The wide range in results demonstrate the high variability across the Canadian healthcare system and an opportunity to learn from others' success. Rurality of place of residence, availability of after hour care, and potential levers for change were also explored as contextual measure and risk adjusters.

Conclusion: These indicators will measure and monitor the current state of primary care and ED usage. The V-PCSC formula provides a novel method to estimate ED cases amenable to virtual primary care. They will drive health system improvements and policies that shape a future of primary care that optimizes virtual solutions.

D4.4 - eConsult safely averts a face-to-face visit and decreases costs in pediatrics

Presented by: Lillian Lai

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Background and Objectives: Primary care practitioners (PCPs) report 35% of face-to-face (FTF) specialist referrals are averted using the Champlain BASE™ eConsult service (eConsult) for elective questions, however, there are concerns of duplication of services, adverse patient outcomes and reduced PCP satisfaction. Following an eConsult, our objectives were: 1. Measure the number of subsequent FTF visits for the same reason and 2. Compare associated healthcare utilization, treatment costs and mortality with a matched FTF control-group and assess PCP satisfaction.

Approach: Retrospective study (2014-2018) in patients (<18yo) where their PCP reported a FTF specialist-referral was averted by an eConsult. For 18 months following the eConsult, patients were linked to provincial health administrative databases and a single-hospital electronic medical record documenting healthcare use for the same diagnosis and specialty. A concurrent retrospective case-control study compared healthcare utilization and costs between an eConsult versus a FTF visit for the same diagnosis. PCP satisfaction was assessed. Adjusted incidence rate ratios (IRRs) with 95% confidence intervals (95%CI), chi-square, Wilcoxon rank sum or one-way ANOVA were used for comparisons where indicated. A p-value <0.05 was significant.

Results: In both population (N=242) and hospital-level (N=239) data, <5% of eConsult patients later accessed the healthcare system for the identical diagnosis and specialty type. When seen, FTF patients waited on average 67 days (49-86 days). eConsult enabled the PCP to initiate pharmacotherapy and receive advice while awaiting a FTF appointment in 21% of cases referred to psychiatry. FTF visits generated 12 times more frequent outpatient visits (IRR 12.6 [95%CI: 2.28-69.66, p=.002]), 9 times higher costs/visit on the day of visit (FTF: \$541CAN [204-1594] vs. eConsult: \$60CAN [52-72]) and 13 times higher costs/visit 3 months after the index visit (FTF: \$2284CAN [530-9826] vs. eConsult: \$179CAN [124-403]). No hospital admissions or deaths were reported in eConsult patients. PCPs (98%) described eConsult as an excellent service.

Conclusion: eConsult can improve timely access to a variety of pediatric specialties for a subgroup of non-urgent medical questions by averting FTF visits safely and cost-effectively, which benefits the system, the PCP, and, most importantly, the patient. Other jurisdictions with long referral times should consider implementing pediatric e-consultation.

D4.5 - Health Service Use in Ontario Hospitals Implementing and Not Implementing Patient Oriented Discharges

Presented by: Karen Okrainec

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Background and Objectives: While individualized discharge instructions enhance patient comprehension and experience, its impact on healthcare utilization remains unknown. The Patient-Oriented Discharge Summary (PODS), the first Canadian patient-facing discharge instruction tool co-designed with patients and caregivers, aims to improve healthcare transitions. This study evaluates PODS' impact on scheduled visits with primary or subspecialty care (7- and 30-days), home care within 7-days, and a composite measure of emergency visits, readmissions or death within 7- and 30-days across Ontario hospitals.

Approach: We conducted a retrospective cohort study using Ontario population-based administrative data linked to implementation-specific hospital-level data from April 2011 to September 2019. The cohort included individuals (age>20) eligible for provincial health care discharged home from acute care or rehabilitation hospitals. We used segmented regression to estimate the institution-level quarterly rate of change of our outcomes during three periods (pre-implementation, implementation, and post-implementation) in PODS (n=21 hospitals) and non-PODS discharges. Modified Poisson regression models including patient-, hospital, and implementation-level factors, interactions between PODS and period, and clustering by institution, estimated patient-level relative risks for each outcome.

Results: The cohort included 5,969,172 patient discharges from 3,683,507 patients. Percent PODS discharges were higher in teaching hospitals, and with higher mean Charlson comorbidity score. There were no differences by age, sex, income quintile, length of stay, or other patient and system-specific factors. Although percentages with primary care visits within 7-days changed over time, these changes were minor and similar for both PODS and non-PODS hospitals. Discharges from PODS hospitals with a higher degree of implementation (>50%) had higher rates of home care visits within 7-days of discharge during implementation years. Caregiver involvement, use of teach-back, and quality in content of PODS were predictors of primary care visits at 30-days among PODS institutions.

Conclusion: PODS had minor, yet unsustained improvement on health care service use, particularly on 7-day primary and home care visits. To improve care transitions, further improvement efforts will need to ensure high levels of hospital-level implementation along with other quality measures for impact.

D5.1 - The “Cost” of Home Visits at End of Life: A Cost-Effectiveness Analysis of Palliative Nurse Practitioner and Physician Care

Presented by: William Hall

All Authors: William Hall¹, Amy Hsu², Sarina Isenberg²

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Background and Objectives: Home-based palliative care (HBPC) can align a patient’s preference for care at home with other desirable outcomes including fewer burdensome transitions and eventual death at home. Despite these preferences, hospitals remain the most common final venue of care for the majority of decedents in Canada. This research uses centralized administrative health databases for the entire population of Ontario to explore the cost-effectiveness of HBPC provided by nurse practitioners (NP) and physicians.

Approach: Intervention and control groups will be weighted using propensity scores with explicit consideration of diversity factors including age, sex, immigrant status, socioeconomic status. Both groups will have received home care (i.e., from non-NP, non-physicians) in the last year of life, and the intervention group will have also received home visits from NPs or physicians in that same timeframe. Doubly robust multivariate regression analysis will be employed to determine the incremental impact of home visit dollars on acute cost avoidance, and ‘death at home’ will be used as the unit of effectiveness for an incremental cost-effectiveness ratio analysis.

Results: Our past research demonstrated that less than 35% of Ontario decedents received a home visit from a physician and/or NP, and that the incremental cost-effectiveness of home care delivered in the last 90 days of life (delivered by nurses, personal support workers, and allied health) was approximately \$995 per home-based death. In this presentation, we will present the incremental cost-effectiveness of home visits provided by physicians and/or NPs in the last year of life, as well as useful health economic insights for policy makers, practitioners, and patients.

Conclusion: The challenges of caring for patients near the end of life at home are growing as our population ages and health resources becomes increasingly scarce. The results of this research will assist health leaders in identifying optimal care delivery models to deliver the highest possible quality of sustainable care.

D5.2 - Faciliter l'implantation d'innovations pour améliorer les conditions de vie des personnes âgées vivant en soins de longue durée

Presented by: Marie-Soleil Hardy

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Background and Objectives: La pandémie a affecté les soins des aînés, avec des conséquences négatives pour les établissements de soins de longue durée (ESLD). Or, l'implantation de politiques et de pratiques fondées sur des données probantes est un défi pour les ESLD, qui manquaient de structure avant la pandémie.

Cette étude vise à identifier les facilitateurs et les barrières à la mise en œuvre réussie de pratiques fondées sur des données probantes dans les ESLD au Canada.

Approach: Un devis corrélationnel longitudinal a invité deux à dix participants par ESLD à travers le Canada à remplir le questionnaire Organizational Readiness for Knowledge Translation (OR4KT) avant et après l'implantation d'une pratique prometteuse. Chaque ESLD a rempli un questionnaire sociodémographique. Les analyses ont été réalisées séparément pour les gestionnaires et employés. Pour éviter un biais de sélection, les données ont été synthétisées au niveau des organisations. Les différences de score ont été analysées par des tests de Student ou de Wilcoxon et les facteurs organisationnels expliquant ces variations ont été réalisés par des tests de Mann-Whitney et corrélations de Spearman.

Results: Cinquante-neuf organisations (323 participants) ont participé à l'étude. De ce nombre, 28 organisations ont répondu aux 2 temps de mesure avec 27 gestionnaires et 17 employés. Le score OR4KT a augmenté légèrement de la perspective des gestionnaires ($p = 0.0452$). Le « Leadership et participation » est la dimension qui a contribué le plus à cette augmentation. Le facteur organisationnel pouvant influencer ce score était la taille de la population dans laquelle l'ESLD est situé ($p = 0.0043$). Plus la taille est élevée, plus le score de l'OR4KT est élevé. Le score OR4KT n'a pas été sensible aux changements du point de vue des employés ($p = 0.7727$).

Conclusion: Le leadership, la participation des gestionnaires et la taille de la population facilitent l'implantation des pratiques dans les ESLD. L'OR4KT est un outil qui devrait mesurer le niveau de préparation des ESLD à l'implantation de nouvelles pratiques selon deux perspectives distinctes, celle des gestionnaires et celle des employés.

D5.3 - Co-designing mental health conversations with health and social care providers across Canada in home and community-based care settings

Presented by: Elizabeth Kalles

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Background and Objectives: Despite strong evidence that mental and physical health are linked, the Canadian healthcare system continues to emphasize older adults' physical needs, resulting in poorly integrated mental health support, care and treatment. Community-based providers are well-positioned to broach the topic of mental health with their clients but lack structured support to do so. This multi-year study aims to co-design and test an evidence-based approach to mental health conversations in home and community settings across Canada.

Approach: Guided by an expert-by-experience working group (n=30), this 3-phase study applies a participatory, mixed-methods design. In Phase 1, aging Canadians, caregivers, and care providers participated in four online workshops (n=59) and an online survey (n=1068) to adapt the Mental Health Continuum model. In Phase 2, community care providers (n=84) participated in seven co-design workshops in rural and urban communities across three Canadian provinces (BC, ON, NS). Participants co-created tools and approaches leveraging the adapted model to facilitate mental health conversations. Workshop artefacts and transcripts were analyzed using framework analysis. Phase 3 involves pilot and feasibility testing the co-designed conversations.

Results: During Phase 1, the Mental Health Continuum for Aging Canadians (MHCAC) was generated and validated for use with community-dwelling older adults; results were presented at CAHSPR 2023. Phase 2 findings will be presented, including: 1) A conversation process map to guide care providers through key decision-points when conducting tailored mental health conversations with clients (e.g., caregiver presence, personal preferences); 2) A MHCAC toolkit that includes design blueprints for physical, digital, and allegorical formats (e.g., magnets, pamphlets, videos, living plants representing client-well being); and 3) An implementation framework with guidance around both universally needed (e.g., MHCAC in-service training for care providers) and site-specific (e.g., paper-based preferences for rural sites, climate concerns for coastal provinces) factors. Phase 3 is ongoing, and results are planned for CAHSPR 2025.

Conclusion: As mental health continues to be a leading cause of disability in Canada, realizing evidence-based approaches to mental health conversations in home and community care settings is an important step in building capacity for the provision of integrated mental and physical health support, care and treatment to aging Canadians.

D5.4 - Hospitalization among long-stay home care clients: comparing services when they return home

Presented by: Janice Keefe

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Background and Objectives: Home supports for older individuals are important for aging in place and returning to the community after hospitalizations. Home care facilitates discharge of older adults from hospital and can prevent hospitalizations, yet research on its responsiveness post-discharge is limited. Such research could further enhance service effectiveness. The objective of this research was to examine how home care responds when older clients return home after a hospitalization.

Approach: A retrospective analysis was undertaken of older long-staying home care clients (age 60+) in Nova Scotia (NS) and Winnipeg Regional Health Authority (WRHA). Clients were admitted to home care between 2011 to 2013 and followed for up to four years. Data sources used in the research included home care clinical assessments, hospitalization records, home care service data, and home care discharge and long term care admission records. The first non-elective hospital admission after home care admission was identified and the home care service amounts in the 30 days prior to the hospitalization and in the 30 days post-hospitalization were reviewed.

Results: 5,278 older clients in the WRHA and 5,323 in NS met the project's initial eligibility criteria; 898 clients in the WRHA and 1,024 clients in NS were hospitalized and returned to the community with home care in their first year after admission to home care. Heart failure and chronic obstructive pulmonary disease were the top two responsible diagnoses among this subset of hospitalizations. In both jurisdictions, home support services increased similarly and significantly post-hospitalization. A minority of clients received nursing home care services pre-hospitalization, which significantly increased post-hospitalization. Greater home nursing service increases were experienced among the NS clients. In both jurisdictions, hospital length of stay was the most significant predictor of higher home support hours after hospitalizations.

Conclusion: Hospitalizations are not rare among older home care clients but when back in the community, home care services are being responsive in an effort to maintain them in their homes. The results point to areas of community chronic disease management and home care service enhancements to further support aging-in-place.

D6.1 - Evaluating newer diagnostic coding systems to replace ICD-9 for physician billing in Canada using a vignette coding exercise and survey

Presented by: Stephanie Garies

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Background and Objectives: Canada adopted the International Classification of Diseases version 9 (ICD-9) in 1979, which is still used by physicians to submit diagnostic codes when billing for outpatient medical services. However, ICD-9 is outdated and does not reflect today's healthcare system. The objective of this study was to obtain feedback from Canadian family physicians on their exploratory use of two newer coding systems that could potentially replace ICD-9.

Approach: This study involved an online coding exercise and survey. Recruitment focused on family physicians, as they use the widest variety of ICD-9 codes compared to specialists. Participants were randomly assigned 5 patient vignettes (from 30) and were asked to select one or more code(s) to describe the patient visit and one code they might submit for billing - first using ICD-9, then (in random order) the new ICD-11 and International Classification of Primary Care (ICPC-3). Post-coding survey asked about their experience coding, preferences of a new system, and implementation readiness/concerns. Code consistency between physicians and ease of use were also calculated.

Results: 161 family physicians across Canada participated (56% female, median age 38 years). For documenting the patient visit, participants preferred ICD-11 (43%) and ICPC-3 (41%) over ICD-9 (9%). For billing, over 90% preferred either ICD-11 or ICPC-3 compared to ICD-9. Participants found ICD-11/ICPC-3 better at capturing medical (75%/71%) and social (44%/52%) complexities compared to ICD-9 (38% and 13%, respectively). Participants coded the quickest and most consistently with ICPC-3 compared to ICD-11/ICD-9 ($p < 0.001$).

Top concerns for adopting a new system included: electronic medical record (EMR) integration (65%), time learning a new system (57%), whether governments would update billing requirements (45%). Most important features were: finding codes quickly (93%), ease of use (89%), integration with EMRs (87%).

Conclusion: This study is part of a multi-pronged approach to gather feedback from family physicians about newer classification systems for clinical documentation and billing in Canada. The findings generated here will inform a future decision around which system is most suitable and preferred to replace ICD-9.

D6.2 - A comparative analysis of regulatory approaches to the assisted living sector in Ontario and British Columbia, and impacts on integrated care

Presented by: Eunice Hammond

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Background and Objectives: The assisted living sector's growth supports older adults' continued independence while offering options for services like meal preparation, housekeeping, personal and medical care. However, regulation across Canada is fragmented with regulatory models varying by province, affecting enforcement of legislation and standards of care. This project compares regulatory approaches undertaken by British Columbia and Ontario to understand why different regulatory models were adopted and how each model influences care planning and care integration for residents.

Approach: This project began with a content analysis of assisted living legislation, regulation, and associated policies in Ontario and British Columbia (n=8) to compare regulatory models. Next, guided by the Ideas, Interests, and Institutions (3-i) framework, we will conduct semi-structured interviews with 12 policymakers to understand the rationale for selecting each model and the implications for care. Interview data will be analysed using reflexive thematic analysis, guided by the indicators outlined in the OECD Framework for Regulatory Policy Evaluation. To inform future regulatory work in the assisted living sector, we will host a deliberative dialogue with stakeholders to draft policy options.

Results: Key findings suggest that despite some overlap in service provision and target population, the two regulatory models studied conceptualised "care" differently leading to different groups of services being subject to regulation. Regulations in British Columbia emphasized resident independence and framed assisted living as a form of supportive housing with little "care" provided. In contrast, Ontario's regulations focused on the medicalized care provided in assisted living homes, specifically, the care provided by regulated healthcare professionals. Notably, in Ontario's regulations there was an absence of discussion on how care by Personal Support Workers should be monitored. Upcoming interviews will be structured to clarify the types of services and care providers that can be regulated most effectively to facilitate care quality and integration.

Conclusion: Regulations are unclear about integrating care in assisted living with publicly funded health care services. In Ontario, it is also unclear how current regulations align with the Health and Supportive Care Providers Oversight Authority's mandate to oversee Personal Support Workers who are integral to care provision in assisted living.

D6.3 - Circumstances surrounding opioid-related toxicity deaths within shelters in Ontario

Presented by: Bisola Hamzat

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Background and Objectives: Ontario is experiencing an ongoing opioid toxicity crisis. Evidence suggests that the shelter system has been disproportionately affected by rising opioid toxicity deaths. Moreover, the opioid crisis within shelters has been exacerbated by the COVID-19 pandemic. Accordingly, the objective of this study was to describe and compare characteristics and circumstances surrounding opioid toxicity deaths within Ontario shelters prior to and during the pandemic.

Approach: We conducted a descriptive cross-sectional study of people who died of an accidental opioid toxicity, where the location of incident (i.e., toxicity) was within a shelter in Ontario, Canada. Our analysis was restricted to conventional shelter spaces as classified by the coroner (i.e., excluding temporary COVID-19 emergency shelters). We summarized characteristics, circumstances surrounding death, and patterns of healthcare use preceding death, pre-pandemic (January 1, 2018 to March 16, 2020) and during the COVID-19 pandemic (March 17, 2020 to May 31, 2022). We compared findings across the two periods using chi-square and t tests, with a significance threshold of .05.

Results: Opioid-related deaths within Ontario shelters more than tripled comparing the pre-pandemic (N=47) to the pandemic period (N=157). Most deaths occurred among people aged 25-44 (48.9% vs 56.1%), and males (80.9% vs 75.8%) in both periods. Fentanyl directly contributed to the majority of deaths, and its role as a direct contributor to death rose during the pandemic (85.1% vs 94.3%; $P < .05$), as did those of stimulants (44.7% vs 71.3%; $P < .001$) and benzodiazepine detection (27.7% vs 56.7%; $P < .001$). Throughout the study period, more than half of deaths occurred among people with a diagnosis of an opioid use disorder (59.6% vs 53.5%; $P=0.46$), and a large percentage of people had a healthcare encounter in the week before death (46.8% vs 43.9%; $P=0.73$).

Conclusion: Our findings demonstrate rapidly increasing numbers of opioid-related deaths within Ontario shelters, and notable differences in circumstances of death and patterns of non-pharmaceutical opioid involvement during the COVID-19 pandemic period. These findings demonstrate the urgent need to expand program and policy interventions tailored toward harm reduction within Ontario's shelter system.

D6.4 - Key features of programs that integrate informal care with formal health and social care: Considerations for a people-integrated care system

Presented by: Michelle Howard

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Background and Objectives: To achieve holistic health, there is a need to re-orient current care models to centre informal and community care networks around a person's goals and health care needs. Informal care can improve population health through networks of informal systems including family, friends, neighbourhoods, schools, and volunteers. The objective of this study was to identify generalizable features of programs that integrate informal with formal care, to inform a conceptual model of a people-integrated care system.

Approach: We conducted a comparative analysis of 13 exemplar care programs involving informal and community care with and without integration with formal health care. Programs were selected based on intersectoral and multi-level involvement, representation of different governance characteristics, and funding options. We used an adapted integrated care framework as a guide and examined the structures, processes, governance, leadership, populations served, social and health issues addressed, alliances and assets established, implementation, effectiveness, and return on investment. Our stakeholder group of academic researchers, agencies, knowledge users, healthcare providers, and policy strategists was engaged in deriving a taxonomy of key leadership and program features.

Results: The analysis identified five categories of leadership and governance: Health Sector Lead; Community and Health Sector Co-Lead; Collaborative Lead Agency (network models); Community Lead; Person-directed (lead agency flexible).

Key generalizable features were:

- Coordination by “backbone” organization
- Person-directed care, integrating physical, mental and social
- Navigation and connection roles (trained volunteers, paid connectors)
- Development of new, informal resources to respond to needs of population
- Option for virtual delivery
- Community mobilization or health and social service coordination
- Primary care leadership, co-designing care with individuals and community
- Modifying built environments, such as housing accessibility.

Community and informal care models can improve population health and reduce health resource utilization. Trained volunteers can be integrated into health care teams to support complex patients.

Conclusion: The analysis identified key governance, leadership, alliances and asset approaches, and implementation components that supported informal care and community networks as part of health and social care programs. A ‘people-integrated care’ conceptual framework emerged that centres informal care and community support within an ecosystem that includes formal care services.

D6.5 - AI & NCD Prevention Policy: A systematic scoping review of empirical research and their considerations of ethics and equity.

Presented by: Catherine Hu

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Background and Objectives: Given the complex aetiology of non-communicable diseases (NCDs), governments and institutions are challenged with developing effective prevention policies. Artificial intelligence (AI) approaches represent a novel and rapidly growing set of tools with emerging applications in policy contexts. This has prompted concerns around ethics and equity in AI use. This review aims to understand how AI is used to inform and understand NCD prevention policy and identify how ethics and equity are considered in this field.

Approach: A systematic scoping review methodology was used. Literature searches guided by published guidelines were conducted in Medline, Scopus, Web of Science, EMBASE, and IEEE Xplore in November 2023. We conducted title and abstract screening, full-text screening, data extraction, and thematic analysis, to characterise how and when AI is being used in the policy process and by whom. Additionally, given that AI tools and methods have the potential to be harmful, we analysed the extent to which the ethics are considered and equity-based approaches are implemented in the context of improving human and population health.

Results: Preliminary analysis of the literature indicates that AI methods and tools are used more frequently by researchers who work in academic institutions and are not embedded in policy decision-making. This research focuses on understanding policy change, assessing needs, and modelling impacts, rather than directly informing policy decisions. AI application was primarily found in research related to assessing risk factors like diet, physical inactivity, and air quality as well as disease incidence and burden. Initial findings also suggest minimal consideration of ethics and equity in actual empirical AI work, despite there being ample discourse and concern about it from adjacent disciplines and sectors.

Conclusion: AI-based research reported in peer-reviewed literature is mainly used by academics to understand the policy process rather than directly informing decision-making processes. Ethics and equity are seldom considered. Further understanding of how AI methods add value to NCD policy decision-making or may impact ethics and equity is needed.

D7.1 - The impact of the COVID-19 pandemic on health care system costs: Evidence from Ontario

Presented by: Mehdi Ammi

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Background and Objectives: The COVID-19 pandemic has had far reaching impacts on health care systems around the world, including in Canada. While some research has started to examine impacts on specific aspects of the health care systems (e.g., cancer care), there is still a need to better understand the broader impacts of the pandemic on the health care system. Our objective was to evaluate the impact of the pandemic on total health care system cost.

Approach: We linked multiple Ontario health administrative databases held at ICES to create a monthly panel dataset from January 2018 to December 2021. We selected a 25% random sample of all adult Ontarians, with a sample size of about 2.9 million individuals, leading to a 139 million person-months dataset. Our main outcome was total health care costs, and we also investigated specific health care costs (e.g., inpatient costs). Our exposure variable indicated whether the month the individual's cost was during the pandemic (starting March 2020). We ran two-way fixed-effects regressions adjusting for covariates, time (months), and public health unit fixed effects.

Results: Balancing tests show that the 25% random sample is representative of the adult Ontarians population on multiple variables such as age, sex, rurality, material deprivation and multimorbidity. Preliminary findings indicate that the COVID-19 pandemic increased total health care costs by \$21 per person on average, over the pre-pandemic average of \$275 per person. This increase appears primarily driven by increase in the cost of inpatient surgical hospitalizations. While the cost of emergency department visits only slightly increased with the pandemic, there was no change in the cost of physician services. Additional analyses, planned to be completed by the conference dates, are continuing with subgroup analyses by age, sex, multimorbidity, quintiles of material deprivation and quintiles of ethnic diversity to assess potentially unequally distributed cost changes.

Conclusion: After two years of the COVID-19 pandemic, total health care costs have increased by a little more than 7%. While outpatient costs remained mostly unaffected, inpatient costs, particularly surgical hospitalizations, increased. It will be important to explore changes in use, intensity, and prices and across different populations.

D7.2 - The impact of sepsis on future high-cost user status: a population-based, retrospective cohort study.

Presented by: Kali Barrett

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Background and Objectives: Health care spending is skewed, as a small segment of the population accounts for a majority of healthcare dollars. Sepsis is a common and life-threatening syndrome present in 20% of hospitalisations that is characterised by infection and organ dysfunction. Sepsis survivors often experience heightened health care utilisation and increased costs in subsequent years. We sought to assess the impact of hospital admission for sepsis on the likelihood of patients becoming high-cost users after discharge.

Approach: Using health administrative databases for Ontario, Canada, we identified all adults who survived hospitalisation for non-obstetric reasons between January 1, 2016 and December 31, 2017, and determined whether they were diagnosed with sepsis during their first observed hospitalisation. We measured health spending for each individual after their discharge relative to health spending for the total population during the same time interval. Persistent high-cost users were defined as those in the top 5% of healthcare spending for 90 consecutive days of observation time. Propensity score weighting was used to account for confounding.

Results: Compared to patients admitted to hospital for non-sepsis reasons (n= 847,992), patients admitted for sepsis (n=79,065) had a longer mean length of stay (14.6 days (SD 28.9) vs 4.9 days (SD 9.9)), were more likely to be admitted to ICU (21.2% vs 14.4%), and had a higher median cost for their hospitalisation compared to those admitted for other reasons (\$8,713 [IQR \$5,486-\$16,687], vs \$5,202 [IQR \$3,269-\$8,372]). Sepsis survivors spent an average of 24.2% of their observation time as a high-cost user compared to 18.1% in the non-sepsis group. Sepsis was associated with being a persistent high-cost user after discharge (OR 1.73, 95% CI 1.72, 1.74), and at any point in time after admission (RR 1.46, 95% CI 1.46, 1.46).

Conclusion: Adults admitted to hospital because of sepsis are more likely to be high-cost users after discharge compared to those admitted to hospital for non-sepsis reasons. Understanding the drivers of these costs will point to opportunities for clinical improvement and higher value care.

D7.3 - Excess healthcare costs attributable to dementia in Ontario: A population-based, matched cohort study

Presented by: Katherine Dover

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Background and Objectives: Dementia is a large and growing Canadian health issue driven by an aging population and increases in life expectancy. A progressive and chronic disease, those living with dementia are often frail with complex health needs, resulting in a high healthcare burden. The aim of this study is to estimate the direct costs of public healthcare services attributable to dementia by comparing healthcare costs for those with and without the disease.

Approach: Linked health administrative data were used to identify a cohort of incident dementia cases among Ontarians 65+ years (2013 to 2020) who were matched to non-dementia controls on the basis of sociodemographic variables, residence in long-term care, death date, and propensity score. Costs were reported in 2018 Canadian dollars and described across four disease phases and by healthcare sector. Direct per-person costs were calculated, and cost analysis was performed to calculate the average annual attributable cost of dementia.

Results: Direct health care costs were higher for dementia cases compared to non-dementia controls across all phases of the disease. The costs attributable to dementia were greatest in the last year of life (\$25,485/person for women and \$31,613/person for men), where healthcare spending was approximately 40% higher for those with dementia, compared to non-dementia controls. Attributable costs were primarily associated with long-term care and inpatient services, including emergency department visits and hospitalizations. In the last year of life, long-term care costs were slightly higher for women (\$20,612/person for women and \$15,827/person for men), while hospital admission costs were over 150% higher for men (\$6,232/person for women and \$16,086/person for men).

Conclusion: Across the course of the disease, the average annual per-person spending for those with dementia is consistently higher than for similar people without dementia. Describing healthcare cost, such as these, is pivotal to ensuring that policy and decision-makers can successfully plan for our country's aging population.

D7.4 - How much does it cost the healthcare system to manage a person presenting with a musculoskeletal disorder to the emergency department?

Presented by: Rose Gagnon

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Background and Objectives: Musculoskeletal disorders (MSKDs) are one of the most important causes of disability, productivity loss and costs to patients and society. Up to 25% of all emergency department (ED) visits are for MSKDs, but little data are available regarding their financial impact on ED operations. This study aimed to measure the costs of the care processes administered to patients presenting with a minor MSKD in a Canadian academic ED.

Approach: This cost study is based on data collected during a randomized clinical trial (NCT04009369, interventions compared: physician alone, physician + physiotherapist). We recruited people (18-80) who presented to a CHU de Québec ED for a minor MSKD (n=78). Costs incurred for each participant were estimated using Time-Driven Activity-Based Costing (TDABC), in which the time invested with a patient determines care costs. Costs of care processes were calculated in two steps, by 1) multiplying the duration of each process (minutes) by the cost per minute of each necessary resource (personnel, equipment, consumables, overheads), and 2) adding up costs for resources used.

Results: Applying TDABC enabled to evaluate the cost of 165 different ED care processes for managing minor MSKDs. Resource costs varied considerably by type and profession (2018-2019 \$CAD, minimum-maximum, \$/minute; human resources: 0.62-6.92, equipment: 0.02-1.06, consumables: 0.01-0.22, overheads: 0.03-0.21). It cost between \$12.55 and \$17.40 for an ambulatory ED check-in and between \$46.37 and \$51.21 for a stretcher ED check-in (ambulance vs group prescription check-in). The median cost of the physician's assessment was \$47.09 for ambulatory patients (assessment duration, 6.8 minutes) and \$59.84 for patients on stretchers (8.6 minutes). The physiotherapist's assessment cost \$80.01 for ambulatory patients (60.0 minutes) and \$120.01 for patients on stretchers (90.0 minutes). The minimum ED cost for managing one included ambulatory patient was \$62.46, and \$249.92 for participants on stretchers.

Conclusion: Estimating costs of care processes is an essential step towards a better understanding of the overall costs associated with managing people presenting with MSKDs in EDs. Results of this study will help identify low-value or unnecessary expenses, and thus contribute to improving the value of care provided in the ED.

D7.5 - Cost-Effectiveness of timely surgery and timely inpatient rehabilitation for the management of hip fracture

Presented by: Zheng Jing (Jimmy) Hu

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Background and Objectives: Hip fractures are major drivers of morbidity, mortality, and burden of disease among the elderly population. Ensuring that patients receive timely surgery within 24 hours of admission to the emergency department, and inpatient rehabilitation within 7 days of discharge from acute care can improve their quality-of-life, but also imposes additional costs on healthcare systems. We sought to determine the cost-effectiveness of ensuring timely surgery, timely rehabilitation, or both, from a public-payer perspective over 5 years.

Approach: We developed a Markov State Transition model using linked ICES datasets to estimate cost-effectiveness. We modeled state transition probabilities of 30-day mortality post-discharge, experiencing a second fracture, death without second fracture, death following second fracture, and 3-month tunnel states of time since initial or second fracture using logistic and Weibull regression. Costs were obtained using resource intensity weights and modeled for each state using gamma regression. We obtained health state utility values from a population-based study. We conducted probabilistic sensitivity analysis to calculate the probability of each strategy being the most cost-effective, from willingness-to-pay of \$0 to \$200,000 per quality-adjusted-life-year.

Results: Patients receiving timely surgery were younger (mean 79.6+11.2 years of age) than inpatient rehabilitation patients (mean 81.8+9.7 years). Around 58% of patients had access to timely inpatient rehabilitation, and 41% to timely surgery. The incremental-cost-effectiveness-ratio of timely surgery alone, timely rehabilitation alone, and both, compared to neither, were \$16,681, \$83,315, and \$66,798 per quality-adjusted-life-year, respectively. Five-year modeled base-case costs were \$131,496, \$132,776, \$151,215, and \$151,490, respectively. Quality-adjusted-life-years ranged from 1.91 to 2.21. A willingness-to-pay of \$71,000 was required to achieve positive net benefit for all strategies. At a willingness-to-pay of \$75,000 per quality-adjusted-life-year, surgery alone had the highest probability of being cost-effective at 0.797. At willingness-to-pay of \$100,000, ensuring both timely surgery and rehabilitation achieved the highest probability of being cost-effective at 0.725.

Conclusion: Health systems should support hospitals' efforts to achieve timely surgery, as this strategy can improve quality-of-life with minimal costs. However, decision-makers need to consider the willingness to devote additional financial resources to improve access to inpatient rehabilitation. These results can inform health system planners of this critical decision.

D8.1 - Investigating the Impacts of Urban Built Environments on the Lived Experiences of People Who Use Drugs in Central Business Districts: A Community-Based Qualitative Study

Presented by: Riley Hammond

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Background and Objectives: High rates of drug use in urban areas are a significant public health problem. While navigating these spaces, people who use drugs (PWUD) face significant health risks, social stigma, legal issues, and constrained access to support services leading to exacerbated morbidity and mortality risks. In response to limited research in this area, this study investigates through the perspectives of PWUD in these spaces how features of central business districts impact their daily lives.

Approach: Using an integrated knowledge translation (IKT) approach and focused ethnographic design, 24 in-person semi-structured qualitative interviews with PWUD in the study setting were conducted. Ethnographic observations and field notes are being utilized to gather additional qualitative data. Participants' accounts were analyzed using latent content analysis, alongside Collins et al., (2019) intersectional risk environment framework, to identify recurring themes within the qualitative data. As part of the IKT approach, a knowledge user group with lived experience is helping to inform these findings. The research protocol was approved by the University of Alberta's Research Ethics Office Pro00122571.

Results: This study provides a contextualized understanding of the lived experiences of PWUD in urban central business districts including the challenges they face, how they navigate these challenges, and the impact of the built environment on their shared daily experiences. Key insights highlight how: unsupportive urban environments exacerbate social and health inequities and lead to adverse emotional, social, and community impacts; inclusive communication, planning, and preparedness are crucial for the well-being of the entire community; and harm reduction services that "meet people where they are at" are essential for addressing gaps in health services infrastructure and supports while demonstrating community solidarity and fostering hope. Evidence-based strategies for integrating these findings into practice, programs, and policy to better address the needs of this population will be discussed.

Conclusion: Despite significant concerns about public drug consumption and related harms in urban business settings, limited research grounded in the perspectives of PWUD is available. The results of this study highlight the importance of fostering dialogue with PWUD to aid in identifying innovative approaches to promote healthier community spaces for all.

D8.2 - Quality indicators for person-centred and recovery-oriented mental health care in primary care and community settings

Presented by: Matthew Menear

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Background and Objectives: Integrating mental health services within primary care and community settings is a priority worldwide. It is critical to ensure that these services are not only accessible but also as person-centred and recovery-oriented as possible. Quality indicators are needed to objectively assess the extent to which current mental health services are aligned with these dimensions of care. We thus aimed to identify indicators measuring person-centred and recovery-oriented mental health care in primary care and community settings.

Approach: We performed an overview of systematic reviews and grey literature searches to identify eligible indicators. Published systematic reviews were identified through searches in Medline, Embase, CINAHL and PsycINFO. For the grey literature searches, we examined the websites and publications of 11 Canadian and 14 international organizations producing mental health quality indicators. Systematic reviews or other data sources were retained if they reported at least one indicator of person-centred or recovery-oriented care for mental disorders in youth or adults that were applicable in primary care or community settings. Our data extraction was guided by conceptual frameworks for person-centred care and recovery.

Results: Our searches enabled us to identify 104 relevant indicators related to person-centred or recovery-oriented mental health care, including 32 reported in six systematic reviews and 72 available from 14 Canadian or international organizations. There were 89 indicators of person-centred care, with continuity of care and patient education being the most common sub-dimensions covered. Only 15 indicators of recovery-oriented care were identified, and no indicators were found that covered key sub-dimensions of the recovery approach (e.g. care that inspires hope). Limitations to the current set of indicators include a lack of specificity (in terms of population or care setting), limited coverage of important sub-dimensions, and sources of data (e.g., medical records) that remain under-exploited.

Conclusion: The current set of quality indicators represents a solid foundation to embed measurement of person-centred, recovery-oriented mental health care into healthcare systems but the development of additional indicators linked to a broader range of sub-dimensions of person-centred and recovery-oriented care is urgently needed.

D8.3 - Shared Decision-Making and Dose Adequacy as a Means of Increasing Engagement in Injectable Opioid Agonist Treatment (iOAT)

Presented by: Hubert Michalus

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Background and Objectives: There exists demonstrated evidence of more favourable outcomes for clients with opioid use disorder (OUD) receiving opioid agonist treatment (OAT) when the dose of the medication they are receiving is adequate in their perception. However, this has not yet been examined in the context of injectable opioid agonist treatment (iOAT). This study delves into the topic of dose adequacy, potentially leading to greater integration of clients into care and better prospects of remaining in it.

Approach: The present research was based on a retrospective quantitative analysis of a prospective longitudinal cohort study involving clients (N = 131) receiving iOAT. The observations were collected at two-month intervals for a year, and then a follow-up was performed at eighteen months. At six months, clients were asked whether their dose was satisfactory. Because of the several follow-ups, multiple observations were collected for each participant, which was accounted for by General Estimating Equations. Lastly, a multivariable model was constructed using a stepwise approach to obtain the results.

Results: The final data analysis was based on five hundred forty-five (N = 545) participant observations, and those were grouped into "dose is satisfactory" or "wants higher dose." The initial unadjusted analyses revealed that the clients were less likely to describe their dose as satisfactory if they were Indigenous; had worse health problems, psychological or physical; had ever had a suicide attempt; were younger at their first ever injection of a drug; were a current smoker; felt troubled by drug problems; gave their medication a lower drug liking score; and felt that their physician was not including them in decision-making over the treatment. After adding the drug liking score to the final multivariate model, only being a current smoker and troubled by drug problems remained significant.

Conclusion: The client whose dose is perceived as inadequate is more likely to experience a range of issues which, if accounted for by prescribers in the shared decision-making process, could improve retention in treatment. The study can also inform guidelines on dosage and help define treatment for clients who smoke tobacco.

D8.4 - The role of mHealth platforms for mental health prediction among youth: a systematic review to inform precision prevention strategies within health systems

Presented by: Jamin Patel

All Authors: *Tarun Katapally¹, Jamin Patel¹*

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Background and Objectives: The mental health crisis among youth is exacerbated by systemic issues, including limited access to care and resources. Mobile health (mHealth) platforms can facilitate remote access to mental healthcare services, reducing stigma and financial barriers. In this digital era, it is imperative to advance mHealth platforms for mental health prediction as it can enable rapid real-time responses and precision prevention of mental health problems among youth, potentially reducing the overall burden on health systems.

Approach: This systematic review aims to synthesize the findings of emerging studies to understand the role of mHealth platforms in predicting mental health outcomes among youth. Predetermined search strategies were deployed across five databases between January 2013 and October 2023 and screened by two independent reviewers. Peer-reviewed articles that involved applications on mobile devices (i.e., smartphones and wearables) to predict mental health outcomes among youth (aged 13-25) were included. To focus on upstream prevention of mental health problems, participants with existing mental health disorders or illnesses were excluded. Study quality was assessed using Hawker's checklist for disparate study designs.

Results: Of the 1624 studies screened, nine studies met the inclusion criteria. mHealth platforms demonstrated potential for predicting mental health but there was wide heterogeneity in predictive performance between studies and limited evidence on the generalizability of prediction models. Machine learning techniques demonstrated versatility by harnessing a wide range of mHealth data sources (physiological, behavioral, and environmental), to contribute to mental health risk prediction. Additionally, there was an influx of innovative methods, including idiographic models and modified risk scoring systems that enabled more personalized, interpretable, and actionable mental health predictions for decision-makers. However, this study found that most mHealth platforms did not provide direct value for users (i.e., they lacked mental health services, interventions, and resources), which is imperative for user engagement.

Conclusion: This review highlights mHealth's ability to predict youth mental health, emphasizing the need for improvements in predictive performance, model generalizability, and user engagement. Policymakers should prioritize integrating mHealth into precision prevention strategies within health systems, while health services researchers should aim to evaluate their efficacy in real-world settings.

D8.5 - Seamless Care-Optimizing Patients Experience -Mental Health (SCOPE-MH): A Collaborative Mental Health Care Initiative and Pilot Evaluation

Presented by: Mona Emam

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Background and Objectives: Primary care practitioners in Ontario experience challenges accessing resources for individuals with mental health problems. Seamless Care-Optimizing Patients Experience Mental Health (SCOPE-MH) is a virtual hub-based collaborative program that supports primary care and facilitates the delivery of comprehensive mental health care. It provides navigation, brief counselling, bridging, and psychiatry consultations to patients whose primary care practitioners are registered with the service. The aim of this study was to evaluate this program using the RE-AIM Framework.

Approach: The SCOPE MH program was evaluated using the RE-AIM framework, assessing Reach, Effectiveness, Adoption, Implementation, and Maintenance alongside physician and patient satisfaction surveys. Reach was measured by patient self-referrals and Effectiveness by patient and physician satisfaction questionnaires, including a Patient-Reported Experience Measure (PREM). Adoption measured the percentage of PCPs referring patients, Implementation tracked patient assessments and discharges, and Maintenance evaluated service stability. Data, collected through the hospital's EMR in REDCap, included patient entry and service tracking. A survey of SCOPE-MH PCPs explored perceptions, while patients completed an electronic survey evaluating the program's effectiveness during COVID-19.

Results: In 10 months, SCOPE-MH received 691 referrals (Reach). Regarding patients' experiences (Effectiveness), 95% of patients (n=44) felt their needs were understood, 89% reported the program provided helpful suggestions to improve their mental health, 86% felt SCOPE-MH had put them on the right path to improve their mental health. Regarding physicians' experiences, 89% of physicians (n=36) said the SCOPE-MH program had saved them time, 86% said the service had introduced them to new mental health resources, while 82% felt they were better equipped to help patients with mental health issues. 54 % of the inducted practitioners used SCOPE (Adoption). A total of 556 cases were referred and closed (Implementation). The average number of referrals received and processed within the time period was 15 per month (Maintenance).

Conclusion: The SCOPE-MH program was well received by patients and primary care practitioners. Collaborative Mental Health Care based on improving access to specialized services by supporting primary care physicians is an effective way to help patients and create capacity in the system for mental health care.

D9.1 - Formative evaluation of a province-led approach to promote quality standards adherence using clinician decision support tools for heart failure

Presented by: Miria Koshy

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Background and Objectives: This study evaluates a provincial program providing clinical decision support (CDS) tool enhancements incorporating provincial quality standards for use on heart failure (HF) patients in primary care and acute care.

The objectives of this study are to a) describe clinician experience with the tools, b) examine factors affecting program spread and scale based on site engagement, and costs of site recruitment, tool design and implementation and c) evaluate resultant changes in clinician behavior.

Approach: This mixed-methods study includes user experience surveys and semi-structured interviews with key informants (who are not involved in the program but have CDS tool expertise), tool users and non-users. Data collection (ongoing) for user interviews and surveys is from multiple primary care sites and two hospitals.

Usage analytics are being leveraged to assess tool uptake across implementation sites. Changes in clinicians' behavior will be assessed through data from electronic medical records (EMRs) and hospital information systems (HIS) where possible. Program documentation will also be reviewed to evaluate the effectiveness of the program's site recruitment, tool design and implementation phases.

Results: Early-stage findings indicate high value of the program due to standardization of clinical best practices and reduced effort for users to adopt such tools that are embedded within clinical platforms. We anticipate that findings from our ongoing data collection will provide insights on whether and how this province-led program can be optimally spread and scaled across more sites and clinical use cases. Findings from interviews with clinician users will direct future steps to improve the tools and support increased utilization. Non-user interviews will provide insights on reasons for non-adoption, and how clinicians approach assessment and treatment of HF patients in the absence of this CDS tool. Data from EMRs and HIS will indicate whether clinicians' adherence to specific quality standards has improved.

Conclusion: This evaluation will help inform provincial decisions on the future direction of this program. Recommendations will be based on the effort and cost of the program, and what other strategies can be adopted to promote improved adherence to quality standards.

D9.2 - Analyzing Healthcare Disparities in Hospital Readmissions: Insights from Machine Learning Analysis

Presented by: Yashpreet Masson & Archita Srivastava

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Background and Objectives: The surge in health data has enabled the integration of machine learning (ML) into ICU patient monitoring. A primary focus lies in reducing hospital readmissions (within 30 days), indicating healthcare quality and continuity. ML enables the prediction of high-risk readmission patients, however, it is crucial to ensure these models remain fair for effective and equitable application. Our research endeavors to assess the accuracy and fairness of ML-based readmission predictions, ultimately enhancing ICU patient outcomes.

Approach: In this research, we analyze the MIMIC-III (Medical Information Mart for Intensive Care) dataset, with focus on hospital readmissions. We primarily utilize tables such as ADMISSIONS, PATIENTS, DIAGNOSES_ICD, and PRESCRIPTIONS. Our methodology involves deploying various ML models to predict readmission risks and assessing their accuracy. An integral part of our analysis involves examining racial demographics (White, Black, Asian, Hispanic, Native, and Others). We rigorously evaluate the fairness of our models' predictions across these demographic groups to determine if they exhibit racial bias. This approach not only enables accurate prediction of readmissions but also exhibit disparities based on patients' demographics.

Results: Our analysis, conducted on a stratified sample of 15,000 patients categorized by race, uncovers significant disparities in hospital readmission rates predicted by ML models when compared to a reference group (White). While all these ML models achieve remarkable accuracy exceeding 94%, the results reveal differing readmission rates across races. This study emphasizes the Predicted Positive Rate (PPR) Disparity metric, highlighting consistently lower predicted readmission rates for non-white groups than for the White group. Specifically, the PPR for Black individuals is 0.26, Hispanic/Latin is 0.08, and Asian is 0.04, all distinct from the White group. These findings emphasize substantial variations in readmission predictions across racial demographics, emphasizing the importance of addressing racial disparities in healthcare

Conclusion: This work revealed disparities in readmission rates among racial groups. In the future, we aim to utilize the full dataset, data from multiple hospitals, more fairness measures, and additional patient factors. This research seeks to advance fairness and equality in medical treatment and patient care.

D9.3 - Exploring the nature and implications of the complex reciprocal relationships that transform patient data into commercial assets - a Canadian qualitative study

Presented by: Sheryl Spithoff

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Background and Objectives: Commercial data brokers acquire primary care records from over 1.5 million people in Canada. Despite the large volume of primary care patient records flowing to commercial data brokers little work has been done to understand the situation such as how the data are acquired and who provides consent. Our objective was to examine and report on the commercialization of primary care patient records in Canada and to understand the implications for patients, society and communities.

Approach: We conducted a qualitative research study informed by situational analysis, a constructivist grounded theory approach. Our data sources included 1) 19 semi-structured interviews, conducted between May 2022 and May 2023, with individuals affiliated with the commercial health data industry in Canada, and 2) publicly available documents on websites of companies involved in the commercial health data broker industry in Canada. We undertook a continuous and iterative process of data collection and analysis; theoretical sampling; line by line and selective coding; memo writing; and creation of theoretical concepts to explain findings.

Results: Commercial health data brokers, physicians and chains of investor-owned primary care clinics partner to transform patient medical records into commercial assets. Data brokers monetize the assets by sharing data, or data analytics, with the pharmaceutical industry. In an emerging model, a data broker subsidiary operates chains of primary care clinics, and is funded by pharmaceutical company sponsors to identify relevant patients and encourage physicians to prescribe the sponsor's pharmaceutical products. Participants constructed these partnerships as reciprocal and beneficial relationships. Participants viewed these relationships as both potentially transformative and deeply problematic for patients and health systems. Because of the problematic aspects - privacy risks to patients and increased pharmaceutical industry influence over medical care -- they described the health data industry as operating without a social license.

Conclusion: Primary care patient data become commercial assets through reciprocal relationships that advance the interests of the pharmaceutical industry. Patients are excluded from the partnerships, and thus from a say in how data are collected and used. The industry's business activities may be vulnerable to public opinion, offering opportunities for change.

D9.4 - Expanding the Horizons of Health Data Management in Canada: The Remarkable Growth and Reach of the Infoway Insights Website

Presented by: Bowen Xu

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Background and Objectives: Attention to timely health data is critical for improvements in quality of care and health system sustainability. This presentation will showcase the substantial growth and outreach of the Infoway Insights website (<https://insights.infoway-inforoute.ca/>) and to underscore its significance in the context of health data management in Canada. It will analyze the role of the platform in facilitating data-driven decision-making within the Canadian health system and demonstrate the breadth of resources available to end users.

Approach: Infoway Insights is an open access, interactive data and analytics hub that allows users to access research findings collected by Infoway and its partners on topics such as citizen and clinician perceptions, preferences and utilization of digital health and related topics and technologies. The platform allows users to customize their data views, compare different indicators and regions, and access interactive dashboards and reports. We conducted a comprehensive analysis of web traffic data, user engagement metrics, and content consumption patterns to evaluate the utilization of this platform by Canadians as well as internationally.

Results: The website has grown significantly since its limited release in 2021. It has since been accessed by over 12,000 users in 115 countries with over 2,000 downloads of publicly available data sets and an average session duration of 12 minutes. Moreover, a diverse range of stakeholders, including healthcare providers, policymakers, and researchers, regularly access and rely on the platform for crucial health data. Notably, the platform has emerged as a key resource for real-time, evidence-based decision-making in healthcare management. Case studies demonstrate how Infoway Insights has been instrumental in improving patient care and optimizing healthcare resource allocation. Efforts are ongoing to enhance the platform's features, usability, and data quality to further strengthen its impact.

Conclusion: The growth of Infoway Insights is evidence of the demand for accessible, data-driven insights in health care decision-making. This platform offers tools and evidence for stakeholders across the healthcare spectrum, thus facilitating data-driven decisions that can improve health care delivery, enhance patient outcomes, and ensure effective resource allocation.

E1.1 - Family physicians in focused practice in Ontario, Canada: a population-level study of trends from 1993/94 to 2021/22

Presented by: Hina Ansari

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Background and Objectives: Evidence suggests a growing trend in the proportion of family physicians choosing focused practice, with a potential to adversely impact the supply of family physicians who can provide comprehensive primary care services. Our study objectives were: (1) to examine trends in focused practice during 1993/94 to 2021/22 in Ontario, Canada, by sex, relative to other practice types and population growth; and (2) to describe the types of services provided by focused practice family physicians.

Approach: We conducted a repeated cross-sectional population-based study using health administrative data from Ontario, Canada from 1993/94 to 2021/22. We classified family physicians into practice types, leveraging a previously published algorithm for determining comprehensiveness of primary care practice. Differences in characteristics between the first and last study year were reported using relative percent change.

Results: The overall proportion of family physicians in focused practice increased from 7.7% (n=856) in 1993/94 to 19.2% (n=3351) in 2021/22. Between 1992/93 and 2021/22, Ontario's population increased by 38.5%, from 10.7 to 14.8 million. During this period, the number of family physicians per capita increased by 14%, from 104 to 118 per 100,000; however, the number of comprehensive family physicians per capita decreased from 71 to 64 per 100,000. The increase in the total number of family physicians per capita was largely accounted for by the growth in focused practice physicians. A decrease in comprehensive practice was consistently observed across recent and less recent graduates. The three most prevalent focused practice types in 2021/22 were emergency medicine (37.0%), hospitalist medicine (26.5%), and addictions medicine (8.3%).

Conclusion: Over the last 30 years, there has been a substantial increase in focused practice family physicians and a corresponding decrease in comprehensive family physicians per capita—a worrisome trend given the current challenges with primary care access. Further research is needed to understand why family physicians are increasingly choosing focused practice.

E1.2 - Barriers and facilitators to the implementation of single points of access for unattached patients in Quebec

Presented by: Mylaine Breton

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Background and Objectives: Single points of access for unattached patients (GAPs) are an organizational innovation aimed to better use health system resources by orienting patients while they are waiting to be attached to a family physician through a centralized waiting list. Although GAPs are a solution-oriented innovation, their implementation across Quebec was not based on evidence. This study aims to document barriers and facilitators to implementing single points of access in four local health regions across the province.

Approach: This study builds on a qualitative case study design (n=4). Data were collected through individual semi-structured interviews and an ongoing grey literature search starting at the inception of the GAPs. Forty interviews were conducted with various actors (e.g., health professionals, decision-makers), and over 100 documents were identified and recorded. Data analysis was conducted through thematic analysis using NVivo software. Codes and themes were developed both inductively and deductively. Deductive codes were built upon Damschroder's Consolidated Framework for Implementation Research as well as an evaluation framework shared by key actors involved in implementation of the GAP.

Results: Preliminary analysis identified key actors' personal characteristics and adaptability as important facilitators. Decision-makers' motivation and their teams' openness to change enabled actions to be put in place quickly. GAP administrative staff and healthcare professionals were very involved at all stages of implementation. Some participants also benefited from previous work experience or management knowledge, which fostered skillful decision-making. Customization of the innovation based on patient needs and local resources was key to success. Regarding barriers, IT tools used to extract monitoring data and follow-up cases were limited. Processes, including the time to process applications, were regularly mentioned limitations. Poor availability of appointment slots, frequent and rapid changes to the innovation's design, and limitations in responding to the growing volume of patients were also repeatedly mentioned.

Conclusion: Although GAPs are intended to promote access to primary care by enabling patient orientation and fostering better use of health resources, their implementation has not been evidence-based. This study provides policy-makers with useful data, especially in a context where labour shortages are making access more challenging.

E1.3 - Age differences in the association between blood biomarkers and incident hypertension in the Canadian Longitudinal Study on Aging

Presented by: Abby Hensel

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Background and Objectives: Hypertension is a key modifiable risk factor for cardiovascular morbidity and mortality, as well as neurodegenerative diseases, such as Alzheimer's disease and dementia. Certain biomarkers, including some lipid or inflammatory markers, may be elevated before the onset of hypertension; however, whether this elevation is instead due to aging is unclear. Therefore, we aimed to investigate age differences in the association between several common and novel blood biomarkers with incident hypertension in an older adult population.

Approach: Longitudinal cohort analysis of 16,056 middle-age and older adults (45-85 years) conducted using baseline and first follow-up Canadian Longitudinal Study on Aging Comprehensive cohort data (2011-2018). Participants with baseline hypertension were excluded. Eight blood biomarkers (HbA1c, cholesterol, high-density lipoprotein [HDL], low-density lipoprotein [LDL], triglycerides, interleukin-6 [IL-6], tumour necrosis factor-alpha [TNF- α], high-sensitivity C-reactive protein [hs-CRP]) were assessed at baseline. Three-year incident hypertension was defined as blood pressure more than 140/90 mmHg, self-reported history, or receiving antihypertensive therapy. Binomial logistic regression was used to estimate the odds of each blood biomarker level on incident hypertension, stratified by age (45-54, 55-64, 65-74, 75+).

Results: A total of 1,639 participants (10.2%) developed hypertension over a 3-year period. Incident hypertension was highest among men (55.0%) and participants aged 55-64 years (32.3%). After adjusting for age and sex, four biomarkers were associated with increased odds of incident hypertension: HbA1c, triglycerides, IL-6, and hs-CRP. Five of eight biomarkers demonstrated an association with hypertension in participants aged 55-64 (HbA1c, HDL, triglycerides, IL-6, hs-CRP), compared to only three biomarkers in participants aged 75+ (HbA1c, cholesterol, LDL). High HDL showed reduced odds of incident hypertension among the total sample (OR=0.62, 95% CI: 0.54, 0.71) and all age groups, except for adults aged 75+ (OR=0.85, 95% CI: 0.63, 1.14). No associations or age differences were observed for cholesterol, LDL, or TNF- α .

Conclusion: Blood biomarkers may be predictive of hypertension in middle-aged and older Canadian adults. Elevated blood biomarkers in older adults may signal disease severity or indicate disease management. Early detection of hypertension using blood biomarkers may inform prevention and intervention strategies and reduce future comorbidity among the older adult population.

E1.4 - Identifying Pathways for Cancer Care from Family Physicians' Electronic Medical Records

Presented by: Liisa Jaakkimainen

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Background and Objectives: Cancer care organizations have produced care pathways for many cancers, along with suggested benchmarks for receiving cancer treatments. Little real-world data exists to identify potential gaps and delays along the care pathway from primary to specialist care for specific cancers. This study used family physician (FP) electronic medical record (EMR) data linked to health administrative data to identify the care pathways and measure wait times for patients having bladder, endometrial, colon and melanoma cancers.

Approach: We conducted a retrospective cohort study. The FP EMR was first linked to the Ontario Cancer Registry to identify bladder, colon, endometrial and melanoma cancers patients. Trained extractors examined the entire FP EMR for these cancer patients to identify the first indication of an abnormal sign/symptom or receipt of an abnormal investigation (called the index date). The health administrative claims data was used to identify the first specialist physician visit. Wait times were measured between the index date found in the FP EMRs to the date of the first specialist visit found in the health administrative data.

Results: The FP EMR data came from a convenience sample of 430 community-based FPs across Ontario. The median wait times in days for bladder, colon, endometrial and melanoma cancers from the index date found in the FP EMR of an abnormal symptom or sign or result to the first specialist consultant visit claim in administrative data were 25, 23, 43 and 26 respectively. The 90th percentile in days for bladder, colon, endometrial and melanoma cancers were 125, 132, 196 and 128 respectively. Patients living in higher deprivation index quintile neighbourhoods experienced longer wait times for bladder and colon cancer. Younger women experienced longer wait times for endometrial cancer.

Conclusion: FP EMR notes linked to administrative data can identify care received by patients prior to their cancer diagnosis. This information can be used to identify care gaps from a patient's perspective. The median wait times for bladder, colon and melanoma are within published benchmarks. Endometrial cancer wait times are longer.

E1.5 - Effects of the COVID-19 pandemic on management of chronic conditions in Canadian primary care: a quasi-experimental pre-post study.

Presented by: Shuaib Hafid

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Background and Objectives: In Canada, most care for patients with chronic conditions and risk factors occurs within primary care. The COVID-19 pandemic altered the Canadian healthcare landscape, including primary care. The objective of this study was to investigate whether management of patients with diabetes mellitus (DM) and/or chronic kidney disease (CKD) was affected by the pandemic .

Approach: We conducted a quasi-experimental pre-post retrospective cohort study using electronic medical record (EMR) data from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) to compare indicators of care for chronic conditions before and during the pandemic. The CPCSSN database houses de-identified EMR data from 14 primary care research networks across Canada. We compared data from patients with validated case definitions for DM and/or CKD from June 22, 2018—March 12, 2020 (pre-pandemic) to March 13, 2020—Dec 3, 2021 (during-pandemic). Indicators of monitoring and care include the number, frequency, and results of HbA1c, eGFR, and ACR tests.

Results: 102,480 patients aged >18 with DM or CKD were included. Median age was 69, 52% were female, and 59% resided in Ontario. 65% had DM only, 23% had CKD only, and 13% had both conditions at baseline. Overall, DM and CKD monitoring tests decreased during the pandemic (i.e., HbA1c, eGFR, and ACR tests), while test results remained similar to pre-pandemic results. Fewer patients with DM received an HbA1c test during the pandemic (86.2% to 76.8%; $p < 0.001$), and mean HbA1c results remained consistent (mean difference (MD)=0.006 [SD 0.7]; $p = 0.106$). Fewer patients with CKD received eGFR tests (90.1% to 84.6%; $p < 0.001$) and ACR tests (37.1% to 32.6%; $p < 0.001$), while both mean test results decreased marginally (eGFR: MD=-2.2 [SD 7.6]; $p < 0.001$; ACR: MD= -2.6 [SD 47.6]; $p < 0.001$).

Conclusion: While the number of DM and CKD-related monitoring tests per patient declined during the COVID-19 pandemic, the results of monitoring tests remained relatively stable compared to pre-pandemic. Further analysis is needed to investigate whether these changes could represent a reduction in the over-use of tests in some patient groups.

E2.1 - Greater underdiagnosis in people from more deprived neighbourhoods? Examining incident dementia across socioeconomic status in Quebec

Presented by: Sanjna Navani

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Background and Objectives: Underdiagnosis of dementia is rampant in healthcare settings, with as many as two-thirds of people with dementia going undiagnosed. Evidence consistently demonstrates that lower socioeconomic status (SES) confers greater dementia risk and that it is associated with poorer outcomes. However, few studies investigate whether one of these associations is increased risk of missed diagnoses. Large-scale research is required to understand the association between under-diagnosis and SES: in this study, we describe incident dementia across SES.

Approach: We conducted a province-wide repeated yearly cohort study (2000-17) of community-dwelling people with incident dementia in Quebec. Data were sourced from the Quebec health administrative database and SES was assessed through an ecological material deprivation index, which provided a composite measure of the level of income, employment and education of one's residential area. People were assigned to 5 material deprivation categories, from least to most deprived: we then described incident dementia cases across each of these 5 deprivation categories.

Results: Among the 193,834 community-dwelling people with a new diagnosis of dementia between 2000 and 2017, the proportion of individuals diagnosed with dementia was similar (around 20%) across each material deprivation category: 18% of the people newly diagnosed with dementia came from the least—and 22% from the most—materially deprived areas.

Conclusion: Despite the association between higher dementia incidence and lower SES, we found similar incidence rates across SES. There is likely severe under-diagnosis of dementia in people from more materially-deprived areas. Improving access to diagnostic services can enhance quality of life and care, and better portray SES-related disparities in dementia incidence.

E2.2 - Exploring Innovations in Emergency Health Services in Rural, Remote, and Indigenous Communities in British Columbia

Presented by: Ashmita Rai

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Background and Objectives: Rural and remote communities face diverse and unique challenges in healthcare delivery, especially emergency health services (EHS) including patient transfers. Innovative methods of care such as Real-Time Virtual Support (RTVS) have been implemented to strengthen rural and remote EHSs in BC, yet there is limited information on the same. This study explores how current innovations emerged and evolved in rural and seeks to understand the impact based on the Quintuple Aim in three community settings.

Approach: The study used narrative methodology in three rural cases: two in northern BC and one in interior BC. Data were collected using a two-phase mixed methods approach. Phase I included community visits and descriptive data collection via online searches. Phase II included semi-structured interviews with healthcare managers, providers, and policymakers and focus groups with patients, family, and community members. Using administrative data sets the following data were collected: the number of patients seen; diagnoses; number of emergency transports out of the community and reasons why; and number of connections with RTVS. Results will be shared in an in-person dialogue.

Results: Qualitative data showed various innovations were used: RTVS/virtual care, translation apps, mechanical CPR devices, and electronic triage and transfer systems to enhance rural and remote EHSs. These innovations offered support to the community and improved patient and health providers' experiences and outcomes. For example, increased community members' access to EHSs, reduced wait times and unnecessary transfer of patients out of the community, promoted continuity of care, and advanced knowledge and practice among health providers. Barriers to innovations included limited funding, communication and technology, limited access to mental health services, cross-jurisdictional policies, and staff shortages. Recommendations to improve EHSs encompassed proactive planning and expanding services. Quantitative data are currently being analyzed and will be included in the presentation.

Conclusion: Recent innovations in EHSs in rural and remote communities have improved care. These study results will guide policy decisions and practices to advance, adapt, and scale innovation in diverse rural settings, facilitating equitable access to emergency care for people living and working in rural, remote, and Indigenous communities.

E2.3 - Diabetes Care and Outcomes among South Asian Individuals Living in Ontario

Presented by: Laleh Rashidian

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Background and Objectives: Approximately 10% of the Ontario population identify as South Asian (SA). Previous research suggests that SA individuals exhibit higher prevalence of diabetes and diabetes-related complications than White populations. The purpose of this study is to evaluate access to diabetes care and diabetes outcomes among SA individuals living in Ontario.

Approach: Patient data was obtained through secondary linked Ontario administrative databases at ICES. Diabetes healthcare utilization and outcomes were obtained through physician, hospital and laboratory administrative databases. SA individuals were identified through the Ontario Diabetes Database using previously validated Surname lists. Rates of diabetes indicators (proportion of individuals up-to-date with HbA1c, individuals with statins dispensed, diabetes-related hospitalizations, etc) among SA individuals were compared to population rates across Ontario for 2021/22. Differences across quintiles of material deprivation were also explored. In addition, diabetes indicators were compared among SA individuals using immigration data accessed through Canada Immigration and Citizenship databases.

Results: There were several notable differences in healthcare utilization and outcomes among SA individuals living with diabetes compared to the provincial average. SA individuals were less likely to be up-to-date with HbA1c screening (45.8% vs 47.2%) and retinal screening (59.1% vs 63.2%) compared to the Ontario average. In line with this finding, we observed that SA individuals were more likely to have poor diabetes control (32.2% vs 29.5%). Interestingly, SA individuals were less likely to be hospitalized for a long-term diabetes-related complication (1.32% vs 1.91%) and more likely to receive statins for prevention of cardiovascular complications (75.3% vs 72.7%) compared to the provincial average. SA immigrants were also less likely to access diabetes screening and more likely to be in poor control compared to SA non-immigrants.

Conclusion: SA individuals could benefit from improved diabetes testing and management. This highlights an opportunity for stakeholders to design targeted interventions for the SA population, to ensure individuals with diabetes are able to access the care they need, regardless of ethnicity.

E2.4 - Exploring variations in patient safety across equity-deserving populations via stratification of CIHI's Hospital Harm indicator

Presented by: Dana Riley

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Background and Objectives: Patient safety and equity are key dimensions of healthcare quality; tracking and reporting harmful events is vital. CIHI reports one in 17 hospital stays in 2021/22 involved patients experiencing at least one harmful event, up from one in 18 for 2014/15. There is limited Canadian data on the rate of harmful events among equity-deserving groups. The objective of this analysis was to examine variations in rates of hospital harm (HH) across population subgroups in provinces/territories.

Approach: We conducted a descriptive study of hospital harm in provinces and territories using CIHI's Discharge Abstract Database (DAD) pooled across three years (2016 to 2018) linked to the Census (2016). Using Statistics Canada's Canadian Census Health and Environment Cohorts (CanCHEC), we investigated the influence of demographic and socioeconomic variables (i.e. equity stratifiers) not generally available in hospital administrative data.

We calculated age-standardized rates (ASR) per 100 hospital discharges and 95% confidence intervals for hospital harm, stratified by sex, income (neighbourhood and individual), racialized group, education, immigration status, language, disability, deprivation indices and geography (urban vs. rural/remote).

Results: Preliminary findings show that harmful events are more likely to be experienced by patients who are: men; older; living in lower income neighbourhoods; and residing in urban settings.

Despite males experiencing higher rates of harm (ASR 4.36 vs. 4.23), overall females experienced 54% of all HH events, with an average age of 64 (vs 49 for those discharged without HH event). For neighbourhood income, the highest rates of HH were observed in the lowest quintile (4.08, 4.04 - 4.11). The rate of HH decreased as neighbourhood income increased with the lowest rate observed in the highest quintile (3.57, 3.53 - 3.61).

Patients from rural/remote neighbourhoods had lower rates of HH (3.7, 3.66-3.73) than those living in urban neighbourhoods (4.47, 4.44-4.49).

Additional equity-stratified results will be presented.

Conclusion: This analysis revealed variations in rates of hospital harm across demographic and socioeconomic factors with marginalized populations experiencing a disproportionate burden of harm. Measuring and monitoring inequalities in patient safety provides hospitals and health systems with information to better understand, target, and evaluate healthcare quality improvement initiatives.

E2.5 - A roadmap for Canadian information to prevent youth homelessness

Presented by: Sakiko Yamaguchi

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Background and Objectives: Youth homelessness accounts for around 20% of Canadian homelessness. Youth who experience a pattern of repeated homelessness are predisposed to negative health impacts, which could be avoidable by ‘Making the Shift’ from current crisis-oriented responses to one emphasizing prevention. We are co-creating a roadmap for information management to support advancements for culturally appropriate, evidence-informed, and ethical decision-making in policy, research, and practices to prevent youth homelessness across Canada and enhance coordination of service delivery.

Approach: We employed multiple approaches to co-creating our roadmap: 1) input from a cross-stakeholder advisory team, 2) literature review on best practices for information management, 3) environmental scanning and interviews with key informants to learn about existing data infrastructure, 4) interviews to understand perspectives of key stakeholders, including youth with lived experience, in youth homelessness, and 5) scanning of municipal, provincial, and national policies and identification of overlaps with other findings. We use an integrated knowledge translation model, engaging with stakeholders to co-create our roadmap. Our roadmap guides future directions for system change around how we collect and use homelessness-related information.

Results: Our findings highlight the potential of data to inform youth homelessness prevention in Canada. The results emphasize the need for: 1) information that comes from multiple sources to inform homelessness prevention, 2) a community centred design for information collection and management, 3) taking into account the diversity and inclusion of youth, 4) ethical information collection, that recognizes youth agency, decisions, and needs, 5) improvements in information collection processes to ensure quality data, and 6) regular engagement with community stakeholders. We found agreement that while city, provincial, and national players are vital, a bottom-up approach (e.g., moving from city to provincial to federal governments) may yield more possibilities. We will present a summary of findings and recommendations that have emerged from our roadmap work.

Conclusion: The roadmap represents an information management strategy to inform decision-making and service delivery for the prevention of youth homelessness. This work has wide health implications as homelessness reduction requires a multi-system coordinated approach. Findings can inform other initiatives for enhanced information use to guide policy for vulnerable populations.

E3.1 - A Vision for Quality Mental Health Care for All

Presented by: Jonathan Mitchell & Nitika Rewari

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Background and Objectives: The Quality Mental Health Care Network (QMHCN) is a national partnership that brings together mental health sector leaders from across Canada to improve access to quality mental health care. Led by HealthCareCAN and the Mental Health Commission of Canada (MHCC), a framework was developed to showcase the different dimensions that contribute to quality mental health care, known as the Quality Mental Health Care Framework.

Approach: To inform the development of the Framework, HealthCareCAN and the MHCC conducted an environmental scan and reviewed existing provincial and territorial, national, and international quality-care frameworks.

We also interviewed QMHCN members and subject matter experts in mental health and research including Healthcare Excellence Canada, the Royal College of Physicians and Surgeons of Canada, the Royal Mental Health Centre, and Waypoint Centre for Mental Health Care and focus groups with people with lived and living experience (PWLLE) through the Patients for Patient Safety Canada and MHCC's Youth Council and Hallway Group.

Results: A thorough review of national and international frameworks that address quality health care was conducted as were interviews with health experts, and insights from PWLLE were compiled. This led to a definition and identification of critical dimensions that encompass quality mental health care, emphasizing both client and provider perspectives.

Quality mental health care is accessible, appropriate, promotes continuous learning and improvement, integrated, people-centred, recovery-oriented, safe, stigma-free and inclusive, trauma-informed, and ensures that health care providers have a safe and comfortable workplace environment.

Comprehensive mental health care for clients must be addressed while also considering the mental health care needs of the providers. Ultimately, what quality mental health care means is "the right care, at the right time, by the right team, in the right place."

Conclusion: Health leaders and organizations can use the framework as a tool to advance an equitable approach to providing mental health care for all. Resources and implementation supports have been developed and will be shared as part of this presentation.

E3.2 - Development of an Anxiety Disorder Following an Emergency Department Visit due to Cannabis Use: a Population-based Cohort Study

Presented by: Daniel Myran

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Background and Objectives: The literature remains unclear on whether cannabis use increases the risk of developing of an anxiety disorder. We compared the risk of having an incident healthcare visit for an anxiety disorder between individuals with an Emergency Department (ED) visit for cannabis use and the general population.

Approach: We conducted a population-based retrospective cohort study of all Ontarians aged 10-105 with no history of healthcare use for an anxiety disorder between January 2008 and March 2019. We identified individuals with an incident ED visit for cannabis use. Our primary outcome was an incident ED visit or hospitalization for an anxiety disorder; our secondary outcome was an incident outpatient visit, ED visit or hospitalization for an anxiety disorder. We compared the risk of the primary and secondary outcomes between individuals with cannabis ED visits and the general population using cumulative incidence function plots and cause-specific Cox proportional hazards models.

Results: We included 12,099,144 individuals with no history of ED visits or hospitalizations for anxiety disorder, 0.29% (34,822) of whom had a cannabis ED visit. Within 3-years of an incident cannabis ED visit, 12.3% (N=4,294) of individuals had an incident ED visit or hospitalization for anxiety - a 3.7-fold (adjusted Hazard Ratio[aHR] 3.69, 95%CI 3.57-3.82) increased risk relative to the general population (1.2% diagnosed). In further excluding individuals with prior outpatient care for anxiety, 23.6% of individuals with a cannabis ED visit had an incident outpatient visit, ED visit, or hospitalization for anxiety within 3-years compared to 5.6% in the general population (aHR 3.88, 95%CI 3.77-2.99). Elevated risk after a cannabis ED visit was observed across all age and sex strata, but was strongest for younger males.

Conclusion: Our results suggest that cannabis use may increase the risk of developing anxiety disorders or worsen existing disorders. Increased education on potential harms of cannabis use may be indicated along with greater screening and counselling on cannabis use by mental health providers caring for individuals at risk of anxiety disorders.

E3.3 - Transition to Schizophrenia Spectrum Disorder Following Emergency Department Visits due to Substance Use With and Without Psychosis

Presented by: Daniel Myran

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Background and Objectives: Episodes of substance-induced psychosis are associated with an increased risk of developing schizophrenia spectrum disorder (SSD). However, there is limited data about the risk of developing SSD in individuals with substance use disorders without episodes of substance-induced psychosis or if risk varies by age and sex. We assessed the risk of developing SSD after Emergency Department (ED) visits for substance use with and without psychosis.

Approach: We completed a population-based retrospective cohort study of all 14-65 year-olds in Ontario, Canada between January 2008 and March 2022 with no previous history of psychosis. Individuals with an incident ED visit for substance use were compared to the general population. Incident ED Visits were categorized as either with or without psychosis. We identified transition to SSD using a chart-validated algorithm based on outpatient, ED and hospital-based care. We used cause-specific hazard models to describe the association between substance use ED visits and subsequent development of SSD.

Results: We included 9,844,497 individuals without a history of psychosis. During the study, 407,737 of these individuals had an incident ED visit for substance use, and of those 13,784 [3.4%] were for substance-induced psychosis. Individuals with substance-induced psychosis were at a 163-fold (age- and sex-adjusted hazard ratio [aHR], 163.2; 95% CI, 156.1-170.5) increased risk of SSD, relative to the general population (3-year risk, 18.5% vs 0.1%). Individuals with a non-psychosis substance ED visit had a lower relative risk of SSD (aHR, 9.8; 95% CI, 9.5-10.2; 3-year risk, 1.4%), but accounted for three times the number of SSD cases (9969 vs 3029) due to how common those visits were. Cannabis-induced psychosis visits specifically had the highest risk (aHR, 241.6; 95% CI, 225.5-258.9), particularly in young men.

Conclusion: ED visits for substance use were associated with an increased risk of developing schizophrenia spectrum disorder. Although substance-induced psychoses had a greater relative risk of SSD, substance use without psychosis was far more prevalent and resulted in a greater absolute number of cases suggesting potential opportunity for more widespread intervention.

E3.4 - Addressing the Opioid Crisis among Red River Métis: Evidence for Targeted Interventions

Presented by: Colton Poitras

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Background and Objectives: Amidst the escalating opioid crisis in Manitoba, the impact on Red River Métis remains largely unexplored. Therefore, this study's objectives center on understanding the crisis's impact on Red River Métis Citizens, providing essential data for Regional Health Authorities and the Manitoba Métis Federation (MMF) to tailor effective health programs, services, and policies. Closing this gap is imperative for informed decision-making in combating the opioid crisis within the Community and improving the wellbeing of the Community.

Approach: A mixed-methods approach was used to gain deeper insights into opioid usage within the Red River Métis Community. A quantitative population-based retrospective cross-sectional study was conducted for fiscal years 2006/09-2018/19 using administrative data from the Manitoba Population Research Data Repository. The rates of prescription opioid dispensing and mean morphine equivalents (MEQ) were compared between Red River Métis and all other Manitobans aged 10 years or older. Additionally, a qualitative focus group study using a Community-Based Participatory Research and Collective Consensual Data Analytics Procedure (CBPR/CCDAP) framework was conducted to gain an intimate understanding unavailable through solely quantitative methods.

Results: The study consistently found higher rates of prescription opioid dispensing and opioid-associated morphine equivalents (MEQ)/person among Red River Métis compared to all other Manitobans in each study year ($p < 0.001$). While prescription opioid dispensation rates decreased and MEQ/person increased among all other Manitobans over the study period, there was no observed change among Red River Métis. Further, key qualitative findings indicated that Citizens were concerned about how opioids affected their communities and expressed the need for more addiction treatment resources, particularly Red River Métis culture-specific programs and support for those experiencing addiction within their families and/or households.

Conclusion: These findings demonstrate that opioid dispensation rates and opioid prescription potencies were higher among Red River Métis compared to all other Manitobans. This knowledge, supported by the focus group findings will aid in the development of programs that alleviate the opioid crisis and improve the health and wellbeing of Citizens.

E3.5 - Cannabis Involvement in Post-Traumatic Stress Disorder Emergency Department Visits After Cannabis Legalization

Presented by: Laurent Perrault-Sequeira

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Background and Objectives: Some individuals suffering from PTSD report using cannabis to self-medicate symptoms. Prior research suggests that legalization of medical and non-medical cannabis has been associated with increases in cannabis use and cannabis use disorders. However, whether these policy changes have influenced cannabis use in individuals with PTSD is unclear. We evaluated changes in cannabis-involvement in ED visits for PTSD after medical and non-medical legalization in Ontario, Canada.

Approach: In this repeated cross-sectional study, we identified all ED visits for PTSD in Ontario between 2008 and 2022. We examined changes in monthly rates of cannabis- and alcohol-involvement in PTSD ED visits over four policy periods: pre-legalization (Jan 2008 - Nov 2015), medical legalization (Dec 2015 - Sept 2018), legalization with restrictions (Oct 2018 - Feb 2020), and commercialization/COVID-19 (Mar 2020 - Dec 2022). We used Poisson models and segmented regression to calculate incidence rate ratios (IRR) with 95% CIs for changes in each policy period.

Results: We identified 381,450 ED visits for PTSD with 4,593 (1.29%) having co-involvement of cannabis and 11,625 (3.05%) having co-involvement of alcohol. Between the pre-legalization and commercialization/COVID-19 period, the mean monthly rate of overall PTSD ED visits increased by 37% (IRR 1.36, 95% CI: 1.29 - 1.43). Rates of cannabis involvement in PTSD ED visits increased by 151% (IRR 2.51, 95% CI: 2.24 - 2.82) between the pre-legalization and commercialization/COVID-19 period, while alcohol-involvement increased by 58% (IRR 1.58, 95% CI: 1.47 - 1.68). Over the study period cannabis-involvement in PTSD ED visits increased by 1.4% (IRR 1.01, 95% CI: 1.01-1.02) each month and there was no significant change to this trend during the different policy period.

Conclusion: In this study, the proportion of PTSD ED visits with cannabis-involvement almost doubled over a 14-year period. These findings suggest a growing trend of cannabis use in individuals with PTSD which may complicate treatment. Heightened awareness and CUD screening in this patient population may be indicated.

E4.1 - How Far are We from Achieving the Evidence-Based Standard of TBI Care? The Pathway to Evaluating Care Quality and Equity through Evidence-based Quality Indicators

Presented by: Arman Ali

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Background and Objectives: Rehabilitation and community integration are cornerstones of recovery for people after traumatic brain injury (TBI), yet chronic supports required by this condition are often unavailable after hospitalization. Socio-economic and region-driven variations in care disproportionately affect equity-deserving groups, but there are few system evaluation strategies grounded in evidence-based care pathways to measure the extent of this problem. Here, we combine Quality Indicators and survey data to evaluate TBI care quality and equity to identify system-level gaps

Approach: Residents admitted to acute care with a TBI diagnosis between 2016 to 2022 were identified using administrative databases (e.g., Discharge Abstract Database, Ontario Health Insurance Plan). From this cohort, data for 13 Quality Indicators were collected to reflect the current TBI care pathway: pre-acute (n=2 indicators), acute (n=1), rehabilitation (n=3), community (n=7). These were stratified by key factors known to influence health outcomes, including but not limited to age, sex, income, rurality, region, presence of pre-existing mental health and/or cognitive comorbidities, and mechanism of injury. Tailored surveys were distributed to rehabilitation and community-level providers to supplement these data.

Results: 34,431 cases of TBI with hospital stay were identified. Over half this cohort were older adults (65+), and nearly 70% were injured by falling. Older adults had a substantially higher incidence rate of moderate-severe TBI (39 per 100,000 for 65-79-year-olds and 173 per 100,000 for those aged 80+) than the overall rate (19 per 100,000). Inpatient rehabilitation admission was low across the province, with 22% of moderate-severe TBI patients admitted in total and only 9% admitted to a specialized facility. For older adults, people with cognitive comorbidities, and people in Northern Ontario, specialized inpatient rehabilitation admission was further limited. Of those who did not receive inpatient rehabilitation, 55% were not followed-up by any medical professional in the community within 30 days of acute discharge

Conclusion: Care quality and equity gaps were identified in the rehabilitation and community stages of care, with particularly critical implications for older adults, people with cognitive comorbidities, and Northern Ontario residents. Health policy changes are needed to facilitate greater access to specialized inpatient rehabilitation across the province, especially for equity-deserving groups

E4.2 - Intervention de réadaptation cardiaque: mieux répondre aux besoins des personnes ayant subi un infarctus du myocarde en région éloignée

Presented by: Jessica Bernier

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Background and Objectives: Les maladies cardiovasculaires (MCV) représentent la première cause de mortalité dans le monde, correspondant à près de 31 % de la population mondiale. La réadaptation cardiaque (RC) est offerte pour soutenir l'autogestion des patients souffrant de MCV, mais absents de la majorité des services de santé en régions éloignées. L'objectif de cette étude était de concevoir un programme de RC adapté aux régions éloignées afin d'améliorer l'offre de services pour les patients à la suite d'une MCV

Approach: Une conception centrée sur l'utilisateur a été réalisée pour concevoir un programme de RC pour chacune des deux régions éloignées participantes. Le processus itératif de conception s'est fondé sur les six phases essentielles au programme de RC du BACPR (2017). Deux comités-conseils ont été créés comprenant des gestionnaires (n = 6), des professionnels de la santé (n = 12) et des patients (n = 2). Nous avons utilisé la méthode du consensus informel pour collecter des données lors de quatre cycles de coconception. Les données qualitatives ont été analysées itérativement, et ce, après chacun des cycles.

Results: La coconception a permis de développer un prototype de programme de RC similaire dans les 2 régions et s'appuie sur une trajectoire de soins et de services en six phases contextualisées aux régions éloignées. Les participants ont apporté des changements structurels aux phases 0, 2, 3 et 4 afin de pallier le manque d'effectifs en région éloignée. Les changements permettent de décentraliser l'expertise en RC hors des centres spécialisés pour s'assurer d'une équité des services sur l'ensemble du territoire. L'éducation thérapeutique du patient a été intégrée à la phase 4 pour les besoins des patients. Les participants ont suggéré que trois offres de suivi pourraient provenir des services infirmiers pour accroître l'accès au programme RC (soins primaires, soins à domicile, programmes spéciaux de maladies chroniques).

Conclusion: Le processus de coconception permet de répondre aux besoins des régions éloignées dans le développement de programme. Ce programme pourra faire l'objet d'une recherche sur l'implantation future. En région éloignée, l'organisation de soins doit être revue pour une offre de RC à l'intérieur d'une trajectoire de soins et de services.

E4.3 - Emergency Department Overcrowding in Canada: A Health System Assessment

Presented by: Gino De Angelis

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Background and Objectives: Emergency departments (EDs) across Canada are under strain and experiencing overcrowding. The demand for health services in the ED health services exceeds the capacity of the ED, hospital, or community to deliver quality care in a reasonable amount of time. Given the need for pan-Canadian objective advice to support this complex and pressing health system issue, we adapted typical health technology assessment methods to support a health system assessment of ED overcrowding.

Approach: Drawing on typical health technology assessment methods, we conducted a series of multi-disciplinary evidence reports that informed guidance from its Health Technology Expert Review Panel (HTERP). The multidisciplinary approach identified evidence-informed solutions to alleviate overcrowding. Patient, clinician, and community engagement and attention to equity and ethical aspects, informed the work. To understand issues and solutions contributing to ED overcrowding, we examined contributing factors and effectiveness of interventions, demographic and utilization patterns, stakeholder perspectives and experiences, and new and emerging interventions. A summary of multistakeholder dialogue sessions with patients, families, community members, ED staff, and trainees was also prepared.

Results: Most factors exist either outside the ED or at the interface of the ED and other health care services; whereas most of the interventions we identified existed within the ED. We identified interventions that might alleviate ED overcrowding including prehospital decision-making by first responders, short-stay crisis units for people experiencing mental health challenges, care strategies to help people after they leave the hospital, and time-based policy reforms. A large body of research summarizes outcomes of and experiences with many, but not all, of these interventions. Although there are limited data on the effectiveness of interventions implemented in a Canadian context, there are numerous examples of innovative interventions being implemented to support reducing ED overcrowding across Canada, including virtual pediatric visits and real-time wait time reporting.

Conclusion: This work provides an example of an evidence and expert-informed assessment of a health system issue. We adapted typical health technology assessment methods to support decision-makers in identifying the factors contributing to ED overcrowding in their particular context and implementing evidence-informed interventions and strategies.

E4.4 - Identifying and prioritizing recommendations to optimize transitions across the care journey for hip fractures: Results from a mixed-methods concept mapping study

Presented by: Sara Guilcher

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Background and Objectives: Individuals who experience a hip fracture often have several transitions in care from the time of injury until returning home. Improving the transition process post hip-fracture is critical for ensuring a high quality of care. However, little is known about the priority areas of different stakeholders. Therefore, we sought to identify recommendations for improving care transitions for hip fracture from the perspectives of persons with lived experience (PWLE), care partners, healthcare providers, and decision makers.

Approach: A concept mapping study was conducted to identify actionable recommendations for what is needed to improve care transitions for hip fracture. Concept mapping is a highly participatory approach, consisting of three main steps: brainstorming, sorting and rating, and mapping. Participants generated ideas about how to improve transitions through virtual focus groups, interviews, and independent activities. These ideas were synthesized by the research team. Participants then sorted the ideas into conceptual piles and rated each statement on importance and priority on a five-point Likert-type scale. In the mapping session, a visual representation of the data was selected and finalized.

Results: Thirty-seven participants took part in this study. The 8-cluster solution was selected by participants as the final map and included the following clusters: (1) access to inpatient services and supports across the care continuum; (2) informed and collaborative discharge planning; (3) access to transitional and outpatient services; (4) communication, education and knowledge acquisition; (5) support for care partners; (6) person-centred care; (7) physical, social, and cognitive activities and supports; and (8) provider knowledge, skills, roles and behaviours. For rating, a strong correlation between importance and priority was identified. Participants rated cluster 8 - provider knowledge, skills, roles, and behaviours as the most important (mean=4.32) and highest priority cluster (mean=4.14), followed by cluster 3 - access to transitional and outpatient services (mean=4.19).

Conclusion: This study highlights the importance of person-centred care, with the active involvement and support for PWLE and their care partners along their care journey. This study also provides insights for future interventions and quality improvement initiatives for transitions in care among hip fracture populations.

E4.5 - The current and desired role of primary care in living kidney donation trajectory: A qualitative description study

Presented by: [Katya Loban](#)

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Background and Objectives: Primary care fulfills essential first-contact and continuous care functions for populations, including more than 500 Canadians who donate their kidney to a patient with kidney failure annually. However, evidence on the care provided by primary care providers to living kidney donors (LKD) is limited. We aimed to explore, from LKD perspective, how primary care was integrated into the donation trajectory. We asked what the experiences and needs of LKDs were with regards to primary care.

Approach: Individual qualitative interviews with 49 directed and non-directed Canadian LKDs, and hybrid inductive-deductive thematic analysis were used in this qualitative description study. Adult male and female participants who spoke English or French and donated their kidney to someone they knew or anyone in need prior to 2020 were recruited via social media and email rosters from seven transplant jurisdictions in Canada. Interviews were conducted via zoom. Interview questions related to the current and desired roles of primary care providers, and perceived gaps in the provision of information, care and coordination of care among different healthcare providers.

Results: Although LKD interview participants provided varying accounts of their experiences, an overwhelming majority described challenges with accessibility, coordination, continuity, and comprehensiveness of care - the four pillars of primary care. About half of LKDs observed important gaps in the knowledge of primary care providers regarding kidney donation and necessary post-donation follow-up. Most participants articulated the desire to see an expanded role for primary care providers in supporting them in their donation trajectory. This included information and care brokerage pre-donation, post-operative and continuous kidney health care, and mental health support.

Conclusion: There are long-term risks of donation and primary care providers are not formally trained or supported to care for LKDs. As we promote and increase living donation, interprofessional team-based care would break the silos between primary care and transplant programs to deliver comprehensive, patient-centered LKD care to improve health outcomes.

E5.1 - Comparing Financial Spending on Health Technologies During Pre- and Post-COVID-19 In Niagara Regional Long-term Care Homes

Presented by: Asif Khowaja

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Background and Objectives: The COVID-19 pandemic was declared amid the fiscal year of 2020 followed by acute staffing shortages and facility lockdowns (i.e., visitor restrictions) resulting in an unprecedented need for technologies in long-term care (LTC) homes. This study aimed to assess spending on health technologies comparing pre- and post-COVID-19 pandemic in publicly funded LTC homes in the Niagara Region.

Approach: A one-way analysis of variance and Tukey's HSD post hoc test were applied to identify if a significant difference existed between spending during 2020-2022 using a public-payer perspective. Quarterly financial data obtained from eight LTC homes were then clustered into four technology streams: i) computer software licensing/support, ii) fall prevention equipment, iii) minor information technology (IT) equipment, and iv) repair/maintenance. A sub-group analysis was conducted to compare spending over time between small, medium, and large-size homes.

Results: A total of C\$2,712,680 was spent on health technologies during all waves of COVID-19 compared to pre-pandemic spending of C\$1,041,573. A higher proportion of spending was on minor IT (C\$1,446,646; 53%), followed by repair and maintenance (C\$576,338; 21%) during the COVID-19 pandemic. On average, the cost per resident was as high as C\$918 during wave 2 compared to the pre-pandemic cost of C\$245. There was a strong statistical mean difference for spending on fall prevention equipment compared to pre-COVID and waves 3 to 4 (p-value, 0.015). Similarly, significant differences were observed for minor IT during wave 1 compared to pre-pandemic (p-value, 0.002). Notably, technology expenditures for mid-size homes were much higher than for large homes across all waves.

Conclusion: This study highlights significant spending on fall prevention and minor IT equipment during the pandemic. More research is needed to assess the long-term economic costs of technologies relative to health gains in LTC homes.

E5.2 - Using health administrative data to shed light on the care needs and service usage of people living with dementia

Presented by: Rachel Latus

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Background and Objectives: Dementia is a growing health concern in Canada, with almost 10 Canadians diagnosed every hour (PHAC, 2020). In 2019, Canada's National Dementia Strategy was released. Its objectives: prevent dementia; advance therapies/find a cure; and improve quality of life for people living with dementia and their caregivers. To support this strategy, the Canadian Institute for Health Information (CIHI) collaborated with PHAC to explore using pan-Canadian health data to address gaps in our knowledge of dementia.

Approach: Using 7 CIHI data holdings from the long-term care, home care, hospital, primary care and pharmaceutical sectors, we identified people diagnosed with dementia in 2017 across 4 provinces (Alberta, British Columbia, Ontario and Newfoundland and Labrador). We then followed these people living with dementia for the following 5 years (FY2017 - 2022) to identify their unique care trajectories and create clinical and socio-demographic profiles. Next, we examined how their health service use patterns were associated with their profiles, as well as caregiver factors, using descriptive analysis and logistic regression.

Results: We found that 2/3 of people living with dementia were diagnosed in the community by a family doctor. More than half accessed publicly funded home care in the 5 years after their diagnosis, and those who did stayed at home longer. Transitions from home care to long-term care were associated with socio-demographic factors, clinical characteristics, and caregiver mental wellbeing. Just under 1 in 10 people living with dementia moved into a long-term care facility without receiving home care at any point during our study period, and about 1 in 4 did not access either publicly funded home care or long-term care. Hospitalizations often preceded care transitions to both home care and long-term care.

Conclusion: Our study demonstrates the value of CIHI's administrative data in understanding the complex care needs of Canada's growing population living with dementia. It highlights that they are not a homogenous group, and that their care trajectory is often the result of both their health status and access to community supports.

E5.3 - How did home care service delivery change in Ontario from 2013 - 2022? A retrospective study using administrative data

Presented by: Sandra McKay

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Background and Objectives: Health care system capacity must grow to support the aging population. To meet current demand, a 50% expansion in home care service availability is required. Understanding of current home care service utilization is needed to inform capacity expansion. Home care leaders and researchers are currently reliant on decades-old data. To provide a much-needed perspective on how home care has changed, this study characterizes Ontario home care service delivery from April 2013- March 2023.

Approach: This longitudinal study used administrative data to describe home care service delivery to all Ontarians aged 0-105 years in Ontario from April 2013 to March 2023. All services delivered to individuals aged 0-105 years with a valid health card are included. Annual counts of the number of unique clients served and units (hours or counts) of service delivered are stratified by service type (e.g., personal support, nursing, physiotherapy, etc.), and patient complexity status (short-stay, palliative long-stay and non-palliative long-stay).

Results: Of the 42.2 million home care service units provided annually, an average of 30.4 million (72%) were personal support, 9.3 million (22%) were nursing, 760,000 were physiotherapy (1.8%), 604,000 were respite (1.4%) and 532,00 were occupational therapy (1.3%). Between 2013 and 2019, service volumes for nursing and personal supported increased by 3.4% and 2.9% per year, respectively. Personal support service volumes dropped by 6.6% in 2020 before rebounding in 2021. Nursing volumes experienced a lower early-pandemic decline (3.6%) but were slower to recover in 2021.

On average, the greatest client volumes were seen by nurses (~262,000/year), personal support workers (~186,000/year), occupational therapists (~166,000/year) and physiotherapists (~128,000/year). Each additional provider group served between 6,000 and 30,000 clients/year.

Conclusion: This study provided a contemporary picture of home care service delivery, which is essential to inform service and health workforce capacity planning to meet growing needs for care. Meeting these needs through home care minimizes health system strain while respecting individuals' preferences to age in their own homes and communities.

E5.4 - Supporting long-term care residents through transitions to acute care hospital

Presented by: *Alixé Ménard*

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Background and Objectives: Burdensome transitions from long-term care (LTC) to hospital can happen even when clinicians engage in goals of care and advance care planning discussions with residents and their care partners. This study examines residents' experiences of transitions from LTC home to hospital and back. This study aims to conduct a needs assessment with residents, care partners, and staff to inform the co-design of a decision-making tool to enhance the LTC to hospital transition experience.

Approach: This multi-phase mixed methods study used semi-structured interviews (duration: 1 hour) followed by two co-design focus groups. Participants were recruited from three LTC sites in Ottawa, Ontario. Eligible participants were English or French speaking residents, care partners, or LTC staff (e.g., physicians, nurses, personal support workers) who experienced or are involved in a transition from LTC to hospital. Interview audio recordings were transcribed verbatim and analysed using reflexive thematic analysis. These data will inform the development of a decision support tool that will be pilot testing at partnering LTC homes.

Results: Residents faced challenges across three timeframes: (1) transitioning from LTC to the hospital, (2) during the hospital visit, and (3) transitioning from the hospital back to LTC. Care partner interviews underscored a need for improved and timely communication between staff and themselves outside of care conferences. Staff interviews highlighted the necessity for education, specifically regarding available LTC services, capturing resident and care partner goals of care and discussing hospital transfers with residents. The majority of participants perceived the hospital transition negatively. Notable challenges during the hospital stay included prolonged wait times, insufficient food availability, and fragmented care.

Conclusion: Transition decisions for LTC residents should align with residents' preferences. This study unveils significant challenges for residents, care partners and staff during transitions between LTC and hospitals. These findings underscore the urgency of implementing improvements to optimize the overall experience for all actors involved in care transitions.

E5.5 - Physician characteristics associated with prescribing end-of-life symptom relief medications in long-term care homes

Presented by: Rhiannon Roberts

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Background and Objectives: Long-term care (LTC) homes are often the final place of care and death for older adults who are unable to live in the community. Therefore, LTC homes must provide quality end-of-life care, including the use of end-of-life symptom relief medications for distressing symptoms (e.g., pain). Previously, we found large variation in prescribing rates for these medications across Ontario's LTC homes. In this study, we aimed to understand if physician characteristics are associated with observed variations.

Approach: We conducted a retrospective cohort study of LTC home residents age 65+ who died in Ontario, Canada between January 2017, and February 2020. Using administrative health data held at ICES, we linked resident data to prescription claims to identify whether residents were prescribed common end-of-life symptom relief medications in the last 14 days of life. We then assigned resident to their most responsible physician and grouped these physicians into quintiles based on their proportion of residents who received ≥ 1 prescription. Finally, we examined physician characteristics associated with prescribing rates using descriptive and regression analyses.

Results: Our study includes 54,445 LTC residents, of which 97.4% were assigned to a most responsible physician (n=1,855). Most responsible physicians were majority male (61.5%), had a median age of 54 (IQR, 44-63), and were responsible for a median of 14 (IQR, 3-38) residents during the study period. Physicians in the highest prescribing quintile were more likely to be female, younger, newer graduate, and palliative care specialist than physicians in the lowest prescribing quintile. Further associations between physician characteristics including the number of LTC homes the MRP practices in, the time the MRP spends in LTC homes, and whether the LTC home has a nurse practitioner (who can also prescribe) are pending.

Conclusion: We aim to identify physician characteristics associated with higher prescribing rates. We plan to share our results with the Ontario Palliative Care Network to inform their programs (e.g., education sessions and/or supports for physicians).

E6.1 - Adapting care provision in family practice during the COVID-19 pandemic: A qualitative study exploring the impact of primary care reforms in four Canadian regions

Presented by: Maria Mathews

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Background and Objectives: Over the past two decades, Canadian provinces and territories have introduced a series of primary care reforms in an attempt to improve access to and quality of primary care services, resulting in diverse organizational structures and practice models. We examined the impact of these underlying primary care reforms on family physicians' (FPs) ability to adapt their roles during the COVID-19 pandemic, including the provision of routine primary care.

Approach: As part of a larger case study, we conducted semi-structured qualitative interviews with FPs in four Canadian regions: British Columbia, Ontario, Nova Scotia, and Newfoundland and Labrador. During the interviews, participants were asked about their personal and practice characteristics, roles they performed over different stages of the pandemic, facilitators and barriers they experienced in performing these roles, and potential roles FPs could have filled. Interviews were transcribed verbatim and a thematic analysis approach was applied to identify recurring themes. To examine the impacts of policy reforms, we analyzed themes related to primary care organization, funding, and health system integration.

Results: Interviews were completed by 68 FPs across the four regions. Participants described five key areas of primary care reform that impacted their ability to operate and provide care during the pandemic: 1) funding models; 2) electronic medical records; 3) integration with regional entities; 4) interdisciplinary teams; and 5) practice size. FPs in alternate funding models experienced fewer financial constraints than those in fee-for-service practices. Electronic medical record access enhanced FPs' ability to deliver virtual care, integration with regional entities improved access to personal protective equipment and technological support, and team-based models facilitated the implementation of infection prevention and control protocols. Lastly, larger group practices had greater capacity to ensure adequate staffing and cover additional costs, allowing FPs more time to devote to patient care.

Conclusion: Recent primary care reforms implemented in Canada enhanced FPs' ability to adapt to the uncertain and evolving environment of providing primary care during the pandemic. Study findings underscore the importance of ongoing primary care reforms to enhance pandemic preparedness and highlight the need for further expansion of these reforms.

E6.2 - Identifying and implementing a rurally inclusive definition for high users of inpatient services

Presented by: Tomoko McGaughey

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Background and Objectives: It is well documented that a small proportion of health care users utilize a large proportion of inpatient health system resources, in a large part due to inequitable access to services and disproportionate burdens of disease. However, definitions for this population are based on urban-centric analyses. By identifying an inclusive definition of rural high service users (HSUs) that is centred on rural spaces, we can further understand underlying factors contributing to elevated health service needs.

Approach: We use the 2011 Canadian Health and Environment Cohort (CanCHEC) which links National Household Survey respondents to the Discharge Abstract Database, annual place of residence, and other data sets. Multiple HSU definitions were evaluated using a series of Cox-proportional hazard modelling to determine which would be most appropriate for rural residents. Models were compared based on distribution between rurality typologies, model fit, and model strength indicators. Social determinants of health characteristics were then integrated to identify differences cross-nationally and by rurality typology. We have also applied this definition to the Canadian Community Health Survey (CCHS) to identify their health behaviours.

Results: We found that the 90th percentile of unplanned hospitalization episodes was the strongest HSU definition inclusive of rural residents. It was found that there are significant differences in socio-demographic characteristics, including immigration status, family structure, income, education status, and home ownership. As well, through the we have assessed health behaviours, including physical activity levels, injury status, and chronic condition status. Measures of accessibility also result in significant different for the HSUs vs non-HSUs, showing non-HSUs have a longer travel time and distance to the nearest 24-hour emergency department. These differences were consistent between rural typologies as well as between provincial regions.

Conclusion: Our study highlights key differences in rural health service use and needs and the importance of rural-centric research. By properly identifying and characterizing rural HSUs we hope this can lead to policies that allow for better health promotion practices, develop healthier communities, and advocate for health and social care resources.

E6.3 - Integrated Care in Ontario: Understanding Evolution of Ontario Health Teams through Developmental Evaluation

Presented by: Kaileah McKellar

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Background and Objectives: Ontario Health Teams (OHTs) are an ambitious initiative that seeks to ensure that all healthcare organizations, providers, and patients across the province are connected to an integrated team with responsibility for eventually providing all healthcare services for a specific population. The objective of this evaluation was to understand how OHTs are developing and what helps or hinders this work of integration.

Approach: We conducted a developmental evaluation (DE) focusing on six OHTs from across Ontario. Each OHT had an embedded researcher acting as a liaison, allowing familiarization with participants and their settings over time. Data collection included observation, key-informant interviews, and participant journaling. Quantitative data from surveys and administrative databases were also available. While primarily inductive, analysis was supported by the Context and Capabilities for Integrated Care Framework and MOH's "Building Blocks" for OHT development. Timely feedback, part of the DE approach, was tailored to each OHT, organized around key themes, and included the strengths and challenges experienced by OHTs.

Results: As we observed the OHTs, it was clear that there were many pathways to take toward development. When examined against OHT Building Blocks, the six OHTs were at different stages of progress in each area, with a different trajectory of evolution over time. Some OHTs are further ahead than others due to contextual reasons or decisions to prioritize specific aspects of OHT development. Looking at specific factors, the engagement of partners, patients and physicians, a collaborative team culture, leadership, governance structures, strategic planning, model design and data-driven practice helped advance vision-building in different ways across OHTs. These factors fostered OHT development when present in meaningful ways and were challenges when absent. Feedback to OHTs focused on highlighting areas of both strength and improvement.

Conclusion: The flexible and strengths-based approach of DE allowed us to track implementation progress and provide feedback to OHTs to support their development. This study provides an early indication of OHTs' strengths and where they will require support to successfully implement integrated care to meet their population's health needs.

E6.4 - Analyzing the Policy Landscape for Injectable Opioid Agonist Treatment (iOAT): A Policy Network Analysis and a Toolkit for Integrating iOAT into the Continuum of Care across Canada

Presented by: Hubert Michalus

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Background and Objectives: Injectable opioid agonist treatment (iOAT) is a safe treatment for people with severe opioid use disorder (OUD) with evidence of cost-effectiveness. Despite its presence in Canada for over a decade, iOAT remains underutilized, and there is potential to extend it to a larger population. In search of opportunities for developing it, the present research traces the policy network related to iOAT and examines it through the lens of multiple theories to uncover potential policy windows.

Approach: The present research is based on a qualitative document analysis, which allows for performing a policy network analysis and mapping the relationships between stakeholders involved in the process of policymaking related to iOAT. It visualizes the interactions between them and defines actors and narratives critical in decision-making. Then, it incorporates Kingdon's Multiple Streams Framework to determine policy windows that have the potential to facilitate the uptake of iOAT in different provinces in Canada through evidence-based advocacy. Finally, applying three different theoretical lenses, i.e., rational-choice theory, public choice, and bounded rationality, it defines an actionable model for policy entrepreneurs.

Results: Through an innovative approach to health policy research, situated at the intersection of the fields of population health, health policy and economics, and political science, this research will map the flow of information and resources and explore dynamics between stakeholders involved in the process of making policies. This will allow for explaining the enduring barriers, identifying the most decisive actors, and examining policy windows for those actors. The takeaway of these analyses will be an applicable toolkit for policy entrepreneurs involved in the process of influencing the current policy landscape, thereby increasing the potential to efficiently integrate iOAT into the continuum of care, improving priority setting and giving access to life-saving treatment to those with severe opioid use disorder (OUD) not yet reached by treatment.

Conclusion: Given the demonstrated cost-effectiveness and favourable outcomes from introducing iOAT to Canada, including higher retention in treatment and reduced involvement in criminal activities, this study helps explain the policy barriers, identifies critical actors in the process of overcoming them, and provides a toolkit for integrating iOAT into care across Canada.

E6.5 - Public Health Finance Decision-Making: A Comparative Case Study of British Columbia and Nova Scotia

Presented by: Mélanie Seabrook

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Background and Objectives: There are noticeable differences in public health (PH) expenditures across Canadian provinces. Though sufficient and stable funding is critical to the effectiveness of PH systems, the existing literature on the determinants and procedures of PH financing is limited. This study aimed to address this gap by 1) describing processes of PH budget-setting, and 2) identifying and analyzing the factors influencing PH finance decision-making, in two Canadian provinces with differing profiles of PH expenditures.

Approach: Our comparative case study analysis of the British Columbia (BC) and Nova Scotia (NS) PH financing systems included a jurisdictional review of academic and grey literature on PH financing processes and trends, and semi-structured interviews with 26 key informants influential in budget-setting for PH. Taking an inductive analytical approach leveraging health system frameworks, we constructed a conceptual model of the political, structural, and external factors influencing PH financing trends. Building on insight from key informants and considering the pathways of influence laid out in the model, we identified policy areas with potential for improving the sustainability of PH financing.

Results: A detailed analysis of the budget-setting process for PH in BC and NS uncovered key factors influencing the trends in PH financing since 2000. External factors such as PH crises and major sociopolitical events created windows of opportunity for investments or cuts. BC key informants reported that a separated PH budget structure, as opposed to integrating PH and healthcare budgets, seemed to have a protective effect over PH funds in regional health authorities. Strong relationships between PH actors and decision-makers such as senior executives were seen to promote stable PH investment. External PH advocacy was a contrasting factor between BC and NS: it played an important role in fostering new PH investments in BC, but was minimally influential over resource allocation in NS.

Conclusion: The findings from this study shed light on some of the possible policy strategies for sustaining PH funding, such as including PH experts at decision-making tables, and isolating PH budgets. Our research aims to inform current PH system strengthening processes being carried out across Canada.

E7.1 - Economic burden of healthcare-associated infections in acute care in Québec: a case control study

Presented by: Eric Tchouaket

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Background and Objectives: Healthcare-associated infections (HCAIs) impose a major burden in acute care facilities by creating additional patient care costs. Costs increase for overall consumption of medication, procedures, and testing, as well as for extended length of stays. The clinical best practices of infection prevention and control (IPC) are essential for patient safety and have been shown to be cost-effective. Economic evaluations of the additional costs that HCAIs incur inform policy makers on the cost-effectiveness of IPC programs.

Approach: A case-control study was used to determine the costs of HCAIs in four Canadian hospitals. Patients who were hospitalized between November 1, 2018, and March 31st, 2021, had their medical charts reviewed. Patients who contracted an HCAI (cases) were matched with those who did not (controls). Eligible patients were hospitalized in the same unit with an overlapped stay of 48 hours or more. Matching was based on age, sex, primary diagnosis and comorbidity. Demographic characteristics, primary diagnosis, type of HCAI, services received, comorbidities, and costs pertaining to the relative level of resources was collected. Descriptive and inferential analyses were performed.

Results: To date, 219 case-control pairs have been identified. Preliminary analyses demonstrate excellent matching between cases and controls for: sex (both are 52% male), age (mean age is 71 years for both), principal diagnosis, and comorbidities (same four most frequent conditions in both groups). Mann-Whitney U tests indicated cases had a significantly higher costs compared to controls ($p=.002$) representing a \$1,321 difference per patient stay. Of the HCAI identified, Methicillin-resistant *Staphylococcus aureus* (MRSA) had the highest costs to treat compared to controls. Multivariate analyses controlling for length of stay confirm these findings.

Conclusion: This study revealed the economic burden attributable to HCAIs in patients with varying levels of complexity of care and services provided. Coupled with the avoided indirect costs of lowered quality of life, this information reinforces the need to invest in IPC programs.

E7.2 - Economic evaluations of healthcare associated infection prevention and control interventions in long term care facilities: A systematic review

Presented by: [Eric Tchouaket](#)

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Background and Objectives: Healthcare-associated infections (HCAI) are common in long-term care facilities (LTCF) and cause significant burden to residents, caregivers, and staff. Infection prevention and control (IPC) measures include the clinical best practices (CBP) of hand hygiene, hygiene and sanitation, screening, and basic and additional precautions. These measures are clinically effective, yet few studies demonstrate their cost-effectiveness in LTCF. The aim of this paper is to conduct a systematic review of economic evaluations of CBP applied in LTCF.

Approach: We twice queried CINAHL, Cochrane, EconLit, Embase, Medline, Web of Science and Scopus for economic evaluations of CBP in LTCF, published in the last three decades. We included controlled and randomized clinical trials, cohort, longitudinal, follow-up, prospective, retrospective, cross-sectional, and simulations studies, and those based on mathematical or statistical modelling. Two reviewers conducted study selection, data extraction, and quality assessment of studies. The Dominance Ranking Matrix classification tool was used to assess whether the intervention should be rejected, favored, or if it was unclear. We applied discounting rates of 3%, 5% and 8%, and presented costs in 2022 Canadian dollars.

Results: We retrieved 3,331 and then 822 records; ten studies were retained. The economic analyses described were cost-minimization (n=1), cost-benefit (n=1), cost-savings (n=2), cost-utility (n=2) and cost-effectiveness which included cost-utility and cost-benefit analyses (n=4). Six studies described screening strategies, two evaluated a combination of CBP, one analyzed routine glove use, and one focused on hand hygiene compliance. Four studies were high quality, three were moderate, and three were low quality. Quality assessment inter-rater agreement was 91.7%. All studies (n=10) demonstrated that CBP associated with IPC are clinically effective and many (n=6) demonstrated their cost effectiveness. According to the Dominance Ranking Matrix, applied interventions were favored over the comparator in six of the ten studies, in the other four it was unclear.

Conclusion: This review describes ten IPC interventions in LTCF that were clinically effective, and more than half were more cost effective than their comparator. Evidence-based data demonstrating financial efficiency is important and informative for institutions and policymakers who allocate healthcare resources; further economic analyses of IPC in LTCF are warranted.

E7.3 - Economic Analysis of Integrated Care Team Program in the Northwest Territories

Presented by: Dat Tran

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Background and Objectives: The Northwest Territories (NWT) has implemented an Integrated Care Team (ICT) model since 2020. ICT is a new model of primary care with a team-based approach that includes community and patient engagement to ensure that patients receive needed and timely care with respect for Indigenous culture. We conducted a population-based economic analysis of the ICT program in Yellowknife using administrative health databases in the NWT.

Approach: We used a combination of difference-in-differences (DID) and propensity score matching methods to compare healthcare resource use and costs plus operation costs between patients who received ICT (ICT patients) and patients who did not (usual care patients) during one year of ICT implementation. Generalized linear model (GLM) was used in sensitivity analysis. Healthcare costs included inpatient, ambulatory care (including emergency department), day surgery, and travel medical services. Operation costs included salaries for community health nurses and a holistic wellness advisor.

Results: There were 16,155 patients using healthcare services in Yellowknife during one year of ICT implementation (March 2020 and February 2021). Of them, 2,245 (13.9%) were ICT and the remaining (86.1%) were usual care patients. ICT patients had more females (65.3% vs. 52.1%; $p < 0.001$) and higher mean comorbidity score (0.35 vs. 0.31; $p = 0.029$), but the mean age was similar (38.3 vs. 37.6 years; $p = 0.127$). ICT and usual care patients had a similar adjusted hospital length of stay (DID=0.04 days; $p = 0.749$) and number of outpatient visits (DID=-0.24 visits; $p = 0.381$) during one year of ICT. Consequently, there were no differences between the two groups in adjusted total healthcare costs (DID=CA\$75; $p = 0.865$) and adjusted total healthcare costs plus operation costs (DID=CA\$-83; $p = 0.850$). Sensitivity analyses with GLM provided similar findings.

Conclusion: The ICT program was generally cost and resource use neutral. It may have other benefits such as improving access to care, promoting culturally-safe care, and improving patient satisfaction. Decision-makers may wish to account for these wider potential benefits when determining how to provide good, accessible, and equitable primary care.

E7.4 - Direct Impact of Extreme Heat on Healthcare Resource Use and Costs in Alberta

Presented by: Dat Tran

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Background and Objectives: Alberta experienced significant extreme heat in the summer of 2021, including 34 unique heatwaves and breaking more than 100 temperature records across the province over 11 days. It is essential to better characterize and understand how recent heatwaves within Alberta impact health and corresponding healthcare utilization to support effective responses. Accordingly, we evaluated the direct impact of extreme heat on healthcare resource use and costs in Alberta in 2021.

Approach: We conducted a retrospective, population-based, cohort study using administrative data sets in Alberta, for the May through September 2021 period (2021 warm season). Patients who had utilized healthcare resources due to extreme heat were identified using International Classification of Diseases (ICD) codes. Healthcare resources included inpatient hospitalizations, ambulatory care visits (including emergency department [ED] and ambulance transfers), and physician claims. Costs were quantified and reported as 2023 CAD \$ values.

Results: A cohort of 4,194 patients with extreme heat related healthcare resource use was identified. These included 109 hospitalizations, 1,020 ambulatory care visits (99.7% were ED visits), 310 ambulance transfers, and 5,555 physician claims. Cardiovascular disease (27.1%), diabetes (12%), and pulmonary disease (7.6%) were the most common comorbidities. These comorbidities were more frequent in those who were hospitalized or attended the ED (30%, 14.2%, and 12.9%, respectively) compared to those who used non-ED outpatient or physician services (26.3%, 11.2%, and 5.8%, respectively; all $p < 0.001$). The mean hospital length of stay was 11 days (CAD \$20,668). Total healthcare costs due to extreme heat were CA\$3.2 million. Patients residing in Edmonton (62.5%) and Calgary (18.8%) accounted for the majority of healthcare costs due to extreme heat.

Conclusion: Extreme heat had a substantial impact on healthcare resource use and costs in Alberta in 2021. People with history of cardiovascular disease were the most affected. The healthcare costs of extreme heat could be higher if other healthcare impacts (e.g., mortality and quality of life) are taken into consideration.

E8.1 - Climate Change & Reproductive Maternal, Newborn, Child, & Adolescent Health (RMNCAH): Evidence Gap Map Exercise

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Background and Objectives: Climate change is rapidly evolving into a global health crisis, marked by devastating mortality and morbidity rates that disproportionately affect vulnerable regions and groups. This review aims to comprehensively understand the impacts of climate change on the reproductive maternal, neonatal, child, and adolescent health (RMNCAH), enabling the development of informed strategies and interventions to address the pressing challenges posed by this multifaceted crisis.

Approach: We conducted an Evidence Gap Map (EGM) following Campbell Standards. We used the EPPI Mapper software to generate an online evidence map, reporting findings in alignment with PRISMA guidelines.

Results: We included 133 studies focusing on maternal health, 196 studies on under-five health, and 44 studies on adolescent health. Preliminary findings from these studies suggest that climate change events, including hurricanes, earthquakes, extreme heat, and extreme cold, have resulted in adverse maternal outcomes such as malnutrition, miscarriage, abortion, preterm birth, gestational hypertension, and prenatal/postnatal depression. Conversely, the impact of climate change events on adolescents includes post-traumatic anxiety, depression, early marriage, respiratory disease, domestic violence, and rape. As for neonates and children, the repercussions of climate change include vector-borne diseases, respiratory issues, anemia, preterm birth, low birth weight stillbirth and neonatal mortality

Conclusion: The findings of this study will facilitate the prioritization of future research and allocation of funding, while also suggesting interventions that may improve RMNCAH impacted by extreme climate events.

E8.2 - Pharmaceutical Patent Challenges and Market Size in Canada

Presented by: Ally Memedovich

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Background and Objectives: Canada has relatively high patented pharmaceutical prices, with average prices about 25% above the OECD median. Generic prices are higher than in major comparator markets, making generic entry attractive. Generic competitors that successfully challenge patents may be able to retain a significant market share, and in some cases to be compensated for being previously excluded from the market. However, the effect of market size on the likelihood of patent challenge in Canada is poorly understood.

Approach: A cohort of challenge-eligible drugs and their associated patents was generated using the Health Canada Drug Product Database and Patent Register. Only drugs for human use were included. Generic and over-the-counter products were excluded. Drugs approved by Health Canada less than six years prior were removed per the exclusivity period guaranteed by the Food and Drug Regulations. Data on Canadian sales were extracted from the IQVIA MIDAS database. Complete market data were available from 2011 to 2022. Binomial logistic regression was performed to assess the effect of market size and age on the likelihood of a challenge.

Results: Overall, there were 709 challenge-eligible drugs. Of these, 111 challenges for 68 unique drugs were filed (9.6% of drugs). The mean time to first challenge was 8.35 years. There was a significant increase in the odds of a drug being challenged as market size increases ($p < 0.001$) and a significant decrease in the odds of a drug being challenged as age increases ($p < 0.001$). Market size and other characteristics that make a drug more likely to see a patent challenge than not will be described.

Conclusion: As drugs with larger markets are more likely to experience challenges, drugs less likely to be challenged may be viable targets for stricter price controls or automatic price reductions, as litigation and therefore early generic entry is unlikely.

E8.3 - Measuring the impact of the introduction of generic methadone in the Ontario Public Drug formulary

Presented by: [Tianru Wang](#)

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Background and Objectives: Effective August 31st, 2022, generic methadone formulations, Jamp methadone and Odan-methadone, were added to the Ontario Drug Benefit Program and listed as interchangeable with brand-name formulation, Methadose. Effective September 29th, 2022, individuals prescribed Methadose were to receive generic methadone or pay the difference in price. Our objectives were to investigate changes in dispensing of methadone after listing changes and their impacts on discontinuation and opioid toxicity.

Approach: We conducted a retrospective population-based time-series analysis of methadone claims in Ontario between January 5th, 2017, and March 31st, 2023. We examined the market share of available methadone products, as well as weekly trends for Opioid Agonist Therapy (OAT) discontinuation and hospital-treated opioid toxicity events. To account for the phased implementation of the policy, we identified transition periods for the methadone-related policy as follows: i) 52-week pre-transition period (September 1st, 2021, to August 30th, 2022); ii) 4-week transition period (August 31st, 2022, to September 28th, 2022); iii) post-transition period (September 29th, 2022, to end of study).

Results: During the transition period, the market share of Methadose rapidly declined from 99.7% to 72.8%, and eventually fell to 52.3% by the end of the post-transition period. Meanwhile, the market share of Jamp methadone and Odan-methadone increased to 4.4% and 22.8%, then stabilized at 7.7% and 40.0%, respectively, by the end of the post-transition period. In the first week of the post-transition period, methadone discontinuation among those stabilized on therapy was slightly higher among recipients of Jamp methadone (1.0%) relative to Methadose (0.6%) and Odan-methadone (0.7%). Whereas hospital-treated opioid toxicity events were low and remained relatively stable among recipients of both brand and generic formulations between August 2022 and February 2023.

Conclusion: The generic methadone formulations led to large shifts in products dispensed, with no indication of broad treatment destabilization or increased toxicity-related harm among methadone recipients. The phased approach and pre-emptive communication on methadone formulation change may have helped mitigate potential treatment disruptions among people with opioid use disorder.

E8.4 - Association of Surgeon Sex and Patient Outcomes after Breast Cancer Surgery: A Population-Based Retrospective Cohort Study

Presented by: Guosong Wu

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Background and Objectives: Prior work has identified high rates of emergency department (ED) visits after breast cancer surgery in our province. While we have previously determined patient factors that are associated with ED visits, other literature has suggested surgeon sex may contribute to post-surgical outcomes. This study aimed to compare patient outcomes (ICU visits, 30-day ED visits, 30-day readmissions, length of stay and death) after breast cancer surgery for male surgeons (MS) versus female surgeons (FS).

Approach: This population-based retrospective cohort study included all breast cancer patients treated with curative intent surgery from 2004-2017 in Alberta, Canada. Patients were identified from Alberta Cancer Registry and linked to Discharge Data Abstract and National Ambulatory Care Reporting System to abstract outcomes of interest. Surgeon data was obtained from the provincial licensing agency. Multilevel mixed-effects logistic regression and negative binomial models allowing random effects for clustering by surgeon were utilized to evaluate the association of surgeon characteristics with post-operative outcomes adjusting for patient (demographic information, social status and disease characteristics) and surgeon (sex, language, year of practice) factors.

Results: We included 27,021 patients treated by 376 surgeons (297 male and 79 female). Median patient age was 59 years, 78% lived in urban centers and most (87%) had early-stage (0-II) disease. There are 49% breast conservation surgery and 51% mastectomy. Female surgeons were younger (median age 46 years vs. 54 years, $p=0.002$), had a higher rate of clinical training in English (99% vs. 98%) and had fewer years in clinical practice (median 20 vs. 28 years, $p=0.004$). In multivariable analysis, patients treated by female surgeons were less likely (odds ratio [OR]=0.73, 95% CI: 0.56-0.94) to visit ED, they had shorter length of hospital stay (incidence rate ratio=0.66, 0.52-0.83) and lower mortality (OR=0.29, 95% CI: 0.16-0.52) after breast surgery compared to patients treated by male surgeons.

Conclusion: After accounting for patient and surgeon characteristics, it was observed that patients treated by female surgeons exhibit a reduced rate of ED visits, shorter hospital stays, and lower mortality. These findings suggest the significance of investigating gender-specific practice patterns to enhance breast cancer patient care.

F1.1 - Development of a Delphi Consensus Tool to Assess Primary Health Care Provider and Organization Readiness to Address Family Violence in Alberta, Canada

Presented by: Stephanie Montesanti

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Background and Objectives: Family violence is a serious public health concern. Primary healthcare (PHC) offers a vital opportunity to identify the risk and protective factors for family violence. National policy guidelines recommend PHC professionals be prioritized for family violence workforce training and service delivery; yet implementation of family violence interventions in PHC has been slow and implementation barriers persist. The objective of this study was to enhance family violence response in Alberta's PHC settings by exploring readiness factors

Approach: Employing an integrated knowledge translation model, implementation science, and participatory action research, this research addresses the need for a comprehensive family violence approach in PHC. The Knowledge to Action framework was employed to examine the process of knowledge translation in real-world practice settings that may influence the identification and response to family violence within PHC. A rapid evidence assessment was first conducted to evaluate existing interventions, followed by expert engagement to gather insights reflecting the Alberta context. Then a 3-round Delphi consensus technique was utilized to refine identified concepts and indicators, ensuring consensus on crucial elements for the readiness tool.

Results: Results from the study revealed significant insights through a multi-phase approach. Key findings from the rapid evidence assessment highlighted five main models/tools for assessing readiness to implement family violence interventions in PHC settings. These models informed the generation of 16 key concepts for a family violence tool in PHC within Alberta. The exploration of readiness in the Alberta context, involving expert panels, added three crucial concepts: patient-centered care, cultural awareness and sensitivity, and trauma-and-violence-informed care. The subsequent 3-round Delphi process, engaging nine diverse panelists, validated the inclusion of all concepts and associated indicators, resulting in a comprehensive tool with 60 items for assessing readiness to address family violence in PHC within Alberta. The findings present an initial step towards validating this tool for practical implementation.

Conclusion: Findings from this study serve as a foundation for future research and practical advancements in family violence intervention programs. By identifying the components that foster readiness for implementing comprehensive family violence programs, PHC organizations can reorient themselves to effectively address an escalating public health crisis.

F1.2 - Exploring the Patient Medical Home Model for Indigenous Primary Healthcare

Presented by: Stephanie Montesanti

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Background and Objectives: The Patient Medical Home (PMH) model, also called the 'medical home' or 'health home', has been proposed as a means of improving primary care through provision of team-based, patient-centred care for a registered patient cohort, thereby enhancing patient experience, and improving quality of care. The Indigenous Primary Health Care and Policy Research (IPH CPR) brought together a group of experts to identify opportunities for adapting the PMH model for Indigenous PHC delivery in Alberta.

Approach: PHC experts and Indigenous Knowledge Holders were engaged in a critical exploration of the PMH Model. Idea generation techniques, including small group discussions, communicating and reflecting on ideas, and brainstorming future directions, were applied for an in-depth exploration of PMH model. In small groups participants explored three questions: (1) What resonates with you in the PMH model? (2) What features or components of the model are critical to explore or advocate for Indigenous PHC delivery? (3) What are some concerns about the model? Following small group and roundtable discussion, participants learned from an adapted Indigenous PMH model in Queensland, Australia.

Results: Four themes on features of the PMH model that are critical for Indigenous PHC delivery: (1) Relational continuity is core to the PMH model but may look different in Indigenous contexts; (2) An Indigenous medical home model must incorporate localized Indigenous perspectives and ways of knowing; (3) An Indigenous PMH model should be adaptable and flexible to fit the local context and meet the needs of the communities it serves; and (4) Need to explore workforce and leadership characteristics required to guide the development, implementation, and daily functioning of an Indigenous PMH. A key theme on concerns about the current model is that it perpetuates structural inequities due to how funding is delivered, resources are allocated, and the norms embedded within professional networks and associations.

Conclusion: Through idea generation and knowledge sharing, key experts engaged in a critical exploration of the current PMH model in Alberta. The expert gathering represents the first step towards advancing an Indigenous PMH that reflects Indigenous knowledge, local context, relational continuity of care, integration of services, and strengthening the health workforce.

F1.3 - The Interprofessional Collaborative Table: Laying the Foundation for the Primary Care Health Workforce to Learn About, From and With Each Other

Presented by: Sophia Myles

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Background and Objectives: Teamwork is a critical solution to improving primary care and enhancing access. Governments have invested in teams where workers are expected to practice collaboratively, yet both practitioners and students have little opportunity to learn about what each other does and how to work together. Over 20 practitioner training partners joined the Team Primary Care Interprofessional Collaborative (IPC) Table to share learnings in curriculum development and work together to transform training for interprofessional comprehensive primary care.

Approach: The IPC Table met quarterly to foster learning about, from and with each other. Facilitated by three co-chairs and Team Primary Care personnel with expertise in clinical, interprofessional, and community-based education, learnings were shared through participatory deliberative dialogues and reflective exercises between December 2022 and January 2024. Topics included: comprehensive primary care service domains; practitioner roles in those domains; unique and complementary skills professions bring to interprofessional primary care teams; the refinement and alignment of comprehensive primary care training learning objectives, core competencies and accreditation standards; and how interprofessional training opportunities could be structured to apply the complementarity of roles.

Results: Emerging from our dialogues, we found a remarkable interest and growth in awareness among professional colleagues about their roles within primary care and how they each contribute to comprehensiveness. Opportunities to learn interprofessionally are either nascent or absent, despite the acknowledgment that interprofessional education is required. Participants identified system factors - siloed curriculum development, training, taught referral patterns, regulation, accreditation - as barriers to learning to practice collaboratively. Participants valued the opportunities to share learnings across practitioner groups that they could integrate into their home institutions and professional program curricula. With a project end date of March 2024, participants expressed concern about the sustainability of their initiatives and the need for continued conversations critical to their work and access to the resources developed.

Conclusion: Efforts are underway to compile a compendium of curriculum resources through an online platform to enable continued dialogue among IPC Table partners and others to help sustain and further build upon the training foundations for interprofessional comprehensive primary care that have been collectively developed.

F1.4 - Evaluating an Innovative Model of Interdisciplinary and Interagency Primary Care for Homebound Seniors

Presented by: Elizabeth Mui

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Background and Objectives: Frail homebound seniors face a myriad of challenges to accessing traditional office-based primary care and are among the highest users of acute medical services. One community is innovating the delivery of continuous, comprehensive and connected care for homebound seniors through an interdisciplinary team working across health sectors. This presentation will focus on program evaluation methods to elicit the impacts and opportunities of delivering and sustaining an integrated primary healthcare service.

Approach: Using the quadruple aim, we evaluated the impact of an integrated primary healthcare program on patient and caregiver experiences, provider satisfaction, health outcomes, and health system costs. We used the Older Adult Experience Survey and the Ontario Health Team Provider Experience Survey - validated, evidence-informed tools to evaluate patient and caregiver, and provider experiences. Health outcomes were examined by estimating the number of hospital avoidance events that occurred since program inception. An extensive review of urgent care data using a standardized process and coding scheme developed by primary care and emergency care clinicians informed this process. Cost savings were calculated accordingly.

Results: A preliminary scan reveals the following emerging themes:

- Responsiveness highly correlates with patient and caregiver satisfaction and a necessary outcome measure for quality of care
- Timely communication is pertinent to overall team functioning and positively reflected in patient, caregiver, and provider experiences
- Sharing core values with leadership most positively correlates with provider job satisfaction
- Integrated home-based primary care prevents and reduces acute care service use. Between June 1, 2021 and Dec 31, 2023, 173 emergency department appropriate visits and 130 hospital admission appropriate events were avoided. These are conservative estimates. Among all urgent visits in which patients benefited from timely diagnosis, only events in which the individual would have rapidly deteriorated without intervention were considered hospital avoidance events. Detailed analysis is planned for Feb 2024.

Conclusion: Key learnings from this evaluation process is how the quadruple aim framework can readily inform process improvement, and how leadership and engagement strategies with partners helps ensure a sustainable interagency program. Team based primary care is a cost and quality effective model of primary healthcare delivery to be replicated widely.

F1.5 - Development of an organizational typology of interprofessional primary care teams in Quebec, Canada

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Background and Objectives: There has been a global shift towards an interprofessional primary care team (IPCT) approach. The effects of the interprofessional model on health outcomes and service use are mixed. An underexplored source of variation is the organizational heterogeneity of teams. The aim study was to develop an organizational typology, describing the different organizational profiles of IPC teams in Quebec and assessing the association between the characteristics of the populations served by the teams and their profiles.

Approach: The study developed a finite mixture model using the data of 368 IPCTs in Quebec. The measures included in the model were the team's sector, type, partnership, maturity, number of sites, number of physicians, full-time equivalent of health professionals, enrollment, funding, and attendance rate. The optimal number of profiles was determined by statistical criteria and clinical meaningfulness. A logistic model was used to study the association between the population characteristics and the organizational profiles. Population characteristics included the proportions of vulnerable, maternity, and disadvantaged patients, patients living in long-term care, patients receiving home care, and the level of rurality.

Results: IPCTs were classified into five distinct profiles varying in size, team composition, sector, type, and level of partnership with other health institutions. These profiles include 'Very small, private, regular, high-partnered, balanced (n=99; 26.9%)', 'Small, private, regular, moderately partnered, balanced (n=101; 27.5%)', 'Medium, public, academically oriented, moderately-partnered, practitioner-oriented' (n=58; 15.8%), 'Large, private, regular, very low-partnered, balanced (n=50; 13.6%)', and 'Very large, private, mixed, very low-partnered, balanced' (n=60; 16.3%). Pregnant women, disadvantaged patients, and those receiving home care were more likely to be served in the 'Medium, public, academic-oriented, moderately-partnered, practitioner-oriented' profile. Rural patients were less likely to be served in this profile or the 'Very large, private, mixed, very low-partnered, balanced' profile. No association was found with patients in long-term care.

Conclusion: This study revealed the heterogeneity of IPCT. This facilitates practitioners to improve team design, allocate resources efficiently, and enhance satisfaction, resulting in better health outcomes. At the policy level, these findings stress the need to consider the heterogeneity in evaluations and develop strategies for optimizing their impact on patient care.

F2.1 - Regional use and supply of psychiatric care in three provinces.

Presented by: David Rudoler

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Background and Objectives: Access to psychiatric care is challenging in Canada, particularly for those with the least means and highest need. However, information on the availability and accessibility of psychiatric services within and across jurisdictions in Canada is limited. This information is required to inform workforce planning. This study aims to fill this gap by assessing the distribution of psychiatric care in three provinces.

Approach: Using health administrative data from British Columbia (BC), Manitoba, and Ontario for fiscal years 2012 to 2021, we developed comparable indicators of psychiatric services. We compared indicators across BC's 16 health service delivery areas, Manitoba's five regional health authorities, and Ontario's 34 public health units. We assessed per capita supply of psychiatrists, utilization rates of any psychiatric service, consultation rates (1-2 psychiatrist contacts), and ongoing care rates (3+ contacts). Analyses were stratified by province, rurality, and neighbourhood income. A sub-analysis was completed on populations with chronic psychotic disorder. Regional and demographic differences were assessed using trend and Kruskal-Wallis tests.

Results: Per capita supply of psychiatrists and rates of utilization remained stable throughout the study period. We identified substantial disparities in the delivery of psychiatric care among the three provinces. Additionally, there was a notable difference in the accessibility of psychiatric care between rural and urban communities. Specifically, individuals residing in rural communities were significantly less likely to receive continuous psychiatric care compared to their urban counterparts. However, rates of utilization were similar for individuals living in lower and higher income neighbourhoods. These discrepancies in supply and utilization were even more pronounced for populations with chronic psychotic disorders. Variation in regional-level rates of utilization was not well explained by variation in per capita supply of psychiatrists.

Conclusion: This study provides information on disparities in the supply and use of psychiatric care across and within three provinces. The findings have implications for planning health human resources to ensure the equitable distribution of mental health services in Canada.

F2.2 - Exploring relationships between sleep quality, clinical depression, and dementia in the Canadian Longitudinal Study on Aging

Presented by: Samia Salame

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Background and Objectives: Sleep plays an important role in cognitive function such as emotional regulation and consolidating memories which are important for a higher quality of life. The study objective was to explore the association between baseline sleep quality and two outcomes: 6-year incident clinical depression and 6-year incident dementia.

Approach: The comprehensive cohort data from the Canadian Longitudinal Study on Aging was used, from Baseline (2011-2015) to Follow Up 2 (2018-2021). Excluded individuals were under the age of 55 and reported physician-diagnosed dementia, clinical depression, and/or mood disorders at Baseline. Sleep quality was defined as a 5 point self-reported sleep satisfaction scale (ranging from very dissatisfied to very satisfied). Logistic regression models adjusting for several covariates (e.g. age, sex, sleep quality, etc.) were run to explore the relationship between baseline sleep quality and depression or dementia.

Results: With a sample size of 16,332 older Canadians, the baseline mean age was 67 years (SD=8.1), 52.5% were male, and 1.9% were non-white. At follow-up 4.4% had depression and 0.5% had dementia. Among individuals with incident clinical depression, sleep satisfaction ratings were 5.7% very dissatisfied, 26.3% dissatisfied, 14.6% neutral, 37.7% satisfied, and 15.7% very satisfied. Those without depression had ratings of 3.2%, 18.8%, 15.0%, 41.1%, and 21.8%, respectively. Among individuals with incident dementia, ratings were 6.5%, 22.1%, 19.5%, 39.0%, and 11.7%, respectively. Those without dementia had ratings of 3.3%, 19.1%, 14.9%, 40.9%, and 21.6%, respectively. Adjusted models showed that those with very dissatisfied sleep had 2.0 times (CI 1.4-2.9) the odds of developing depression and 5.2 times (CI 1.5-15.7) the odds of developing dementia.

Conclusion: This analysis suggests that poorer sleep quality is associated with both incident clinical depression and dementia. By understanding the role that sleep quality has on mental well-being, initiatives that support good sleep hygiene should be implemented and may serve as a relevant screening tool for severe mental health outcomes.

F2.3 - “You need ONE team”: Developing practice guidance to support alternate level of care (ALC) patients with a dual diagnosis to transition out of hospital

Presented by: Avra Selick

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Background and Objectives: An alternate level of care (ALC) designation is given to patients who no longer require hospital-level care but cannot be discharged, often due to a lack of suitable discharge options. Compared with other inpatients, inpatients with a developmental disability and mental illness (i.e., dual diagnosis) are nearly 9 times more likely to be designated ALC. This project aimed to develop practice guidance to support successful transitions from hospital to community for this population in Ontario.

Approach: First, an environmental scan was conducted of the academic and grey literature to identify transition best practices. Based on this scan, draft transition principles and core components were developed using the Ontario Health Quality Standards on Transitions Between Hospital and Home as a guiding framework. Second, consultations were conducted with over 100 key informants to understand transition experiences across Ontario and obtain feedback on the draft. Informants included hospital and community providers, system planners, and individuals who had experienced an ALC hospitalization and their families. Finally, a multi-sectoral expert panel was convened to review and approve the final practice guidance.

Results: Both the environmental scan and consultations identified similar barriers to ALC transition including lack of appropriate community living options, lack of standardized discharge processes, inconsistent resource availability across the province, lack of data to inform decision-making, a shortage of trained health care providers, and siloed health and social service sectors. To address these challenges, practice guidance was developed, including seven principles and ten core components. The core components identify key elements that should be in place throughout the transition period, including preparing for transition, during transition and while the person adjusts to their new home. An overarching theme in the practice guidance is the need for a collaborative approach to transitions that includes the patient, family, hospital team, community healthcare providers, and developmental service providers.

Conclusion: This practice guidance can support ALC patients with a dual diagnosis to transition from hospital into the community, though currently the necessary resources are not always available to fully implement all elements. Implementation of the practice guidance requires action from frontline providers, organizations and system planners.

F2.4 - A Comparative Policy Analysis of Opioid Use Disorder Treatment in Primary Care Across Six Provinces in Canada

Presented by: Anita Shah

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Background and Objectives: Opioid agonist therapy (OAT) is a key component of opioid use disorder (OUD) pharmacotherapy. Primary care is well-positioned to improve OAT access and comprehensive care for people with OUD. This analysis aimed to elucidate commonalities and differences in OAT oversight, policies, and provision across Canadian provinces.

Approach: The provinces examined include British Columbia, Alberta, Ontario, Saskatchewan, New Brunswick and Nova Scotia. Documentary data were collected from sources such as provincial governments, regulatory colleges, and organizations, and included OAT guidelines and policies. The Health System Dynamics Framework was used to develop a data extraction tool examining OUD treatment and health systems. Analysis was then conducted by inductively coding data into the following categories: treatment provision, prescriber training and regulations, and finances.

Results: Training requirements for OAT prescribing differ between provinces and are often distinct for physicians and nursing professionals. Certain regulatory colleges, such as Ontario, require training but do not outline specific educational components. Others, such as Saskatchewan, require completion of training programs approved by its college. Primary care is involved in OAT delivery in all provinces in various ways. For instance, Ontario encourages initiation of care in specialized centres with a transition to primary care. British Columbia leverages primary care at all treatment stages with channels to allow primary care clinicians to consult specialists. Variations in accessing OAT are also affected by provincial funding; only the British Columbia drug plan entirely covers OAT costs. Similarly, public coverage for comprehensive mental health services, including counselling, is variable.

Conclusion: Differences in OUD treatment in Canada with respect to primary care, training, and funding reflect heterogeneity in provincial health systems and responses to the opioid crisis. To improve provincial responses to growing rates of OUD, further analysis of factors underlying these differences is required.

F2.5 - Changes in cannabis involvement in ED visits for anxiety after cannabis legalization: A repeated cross-sectional study

Presented by: Jennifer Xiao

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Background and Objectives: As interest in cannabis legalization rises globally, there is concern that cannabis use may increase along with related mental health conditions, including anxiety disorders. We examined changes in cannabis-involvement in ED visits for anxiety over a 14-year period in Ontario, Canada coinciding with medical cannabis liberalization, non-medical cannabis legalization with store and product restrictions, and later commercialization with expanded stores and products.

Approach: We conducted a repeated cross-sectional population-based study to identify all ED visits for anxiety from residents of Ontario, Canada, aged 10-105 between 2008 and 2022. We used interrupted time-series analyses to examine immediate and gradual changes in cannabis-involvement over four policy periods: pre-legalization (Jan 2008 - Nov 2015), expanded medical access (Dec 2015 - Sept 2018), non-medical legalization with restrictions (Oct 2018 - Feb 2020), and commercialization which overlapped with the COVID-19 pandemic (Mar 2020 - Dec 2022). Poisson models were used to generate incidence rate ratios (IRR) with 95% CIs.

Results: Our study included 438,700 individuals with one or more anxiety ED visits of which 3,880 (0.89%) had cannabis-involvement and 6,329 (1.45%) had alcohol-involvement. Individuals with cannabis-involvement were more likely to be male (60.8% vs 40.4 %) and younger (mean age 25.7 vs 39.4) than individuals without. The monthly rate of anxiety ED visits with cannabis-involvement increased by 156% (IRR: 2.56, 95% CI: 2.29-2.86) between pre-legalization and commercialization period, compared to 32% for alcohol-involvement (IRR: 1.32, 95% CI: 1.23-1.41). Anxiety ED visits with cannabis-involvement were increasing pre-legalization by 1.3% (IRR 1.01 95% CI: 1.01-1.02) a month and this trend did not change during medical liberalization or legalization with restrictions. However, commercialization was associated with an immediate 31.4% (IRR: 1.31, 95% CI: 1.05-1.65) increase in visits with cannabis-involvement.

Conclusion: We found large increases in ED visits for anxiety with cannabis involvement over time, with the greatest increase during cannabis market commercialization. Ongoing work is needed to understand whether these changes reflect greater self-medication of anxiety symptoms using cannabis or the development of anxiety disorders subsequent to cannabis use.

F3.1 - Comprehensiveness in Primary Care: A Scoping Review

Presented by: Agnes Grudniewicz

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Background and Objectives: Primary care is foundational in supporting individual and population health, providing first-contact care that is continuous, coordinated, and comprehensive. Concerns have arisen about reduced comprehensiveness of primary care, despite its crucial role in high-quality care. There is considerable variation in how “comprehensiveness” is defined, making a common understanding of this concept elusive. Our objective was to map existing definitions, frameworks, components, and measures of comprehensiveness.

Approach: This scoping review followed methods outlined by Arksey and O’Malley and by Levac et al. The search strategy was developed in Medline and applied to multiple databases and grey literature. Sources were eligible for inclusion if they offered a definition of comprehensiveness within the context of primary care. Study selection involved two stages—title/abstract screening and full-text review. We extracted study type, practice context, definitions and measures of comprehensiveness and their various characteristics. Analysis involved generating counts of key datapoints relating to comprehensiveness and deductive and inductive qualitative analysis of the comprehensiveness definitions for narrative synthesis.

Results: Over 10,000 sources were screened; 359 were included for analysis. Most sources were research articles (~84%), roughly 80% were published after 2000, and about 70% originated in North America. The majority of definitions focused on comprehensive care for the general population (75%). Key characteristics of comprehensiveness were identified across definitions, breaking out across three categories. One category focused on breadth or scope of care, including services offered, practice settings, patients served, and diagnoses or conditions treated. Another category encompasses approach to care, namely practice philosophy (e.g., whole-person care). A final category focused on readiness to meet patients needs, including availability (e.g., hours of service), structural resources (e.g., clinic equipment and facilities), provider skills and competence, and team delivery of care.

Conclusion: Many definitions and measures of comprehensiveness exist, touching upon breadth or scope of care, approach to care, and/or readiness to meet patient needs. Greater consistency and clarity is needed in how comprehensiveness is conceptualized, with attention to the context or setting where the concept is being used.

F3.2 - Evaluation of Provincial Investments in Digital and Virtual Care Programs in Ontario

Presented by: Emily Ha

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Background and Objectives: In 2020, Ontario received \$46 million to expand digital and virtual care initiatives. Evaluating the impact of this investment is a complex but important task to ensure the efficient allocation of resources, improvement of healthcare outcomes, and sustainable growth. This study aimed to systematically evaluate the impact of all healthcare investments across eight portfolios of digital and virtual care programs to determine alignment with provincial strategic priorities and inform future funding investments.

Approach: Performance and reporting data from 174 funded digital and virtual care programs across eight funding portfolios during the 2022-23 fiscal year were used. Natural language processing and thematic and content analysis were used to identify outcomes-based metrics and key performance indicators that demonstrated success and impact on the Quintuple Aim (patient experience, provider experience, population health, health equity, and healthcare costs). Outcomes were also mapped to the Ontario Ministry of Health's strategic priorities to determine effectiveness and impact. To identify capacity-building initiatives for health system growth, an analysis of implementation, sustainability, spread, and scale strategies was also conducted.

Results: All funded programs aimed to improve equitable access, the patient and provider experience, and/or health outcomes although only 78% (n=136) demonstrated effectiveness. For implementation considerations, learning from past initiatives and leveraging existing, mature, and well-defined governance structures were the most used strategies to ensure efficient resource allocation. However, the differing stages of maturity of organizations overseeing the funded programs significantly impacted sustainability, with 72% (n=125) of programs noting lack of sustainability plans beyond the initial 1-year funding period. Lack of standardized data collection tools, poor data quality, funding concerns, and lack of change management considerations were the most reported barriers to evaluation and quality improvement efforts, which impacted long-term sustainability and spread and scale efforts.

Conclusion: In Ontario, majority of investments in digital and virtual care programs were effective but not sustainable. As the health system evolves, it is important to continue evaluating investments to optimize resource allocation and enhance the quality, accessibility, and sustainability of digital and virtual care programs.

F3.3 - Quality of care for community-dwelling older adults living with dementia in BC: an interrupted time-series analysis to examine the effect of the COVID-19 pandemic

Presented by: Mary Helmer-Smith

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Background and Objectives: Older adults living with dementia (OALwD) faced significant changes to health and social services during the COVID-19 pandemic. Quality care for people with dementia is a provincial and national priority. Yet, regular monitoring is not reported, and the care received by OALwD in British Columbia (BC) during the pandemic has not been evaluated. We are examining the effect of the COVID-19 pandemic and associated policy changes on quality of care for community-dwelling OALwD in BC.

Approach: This population-based retrospective cohort study is using routinely-collected health administrative data to examine longitudinal trends in population-level indicators of quality care, comparing effects among community-dwelling BC residents aged 65 years and older with dementia and those without dementia. Indicators across the Institute of Medicine's six dimensions of quality (e.g., effectiveness, safety, patient-centeredness) were selected, including rate of hospitalization, medication use, and continuity of care. Interrupted time series (ITS) analysis will examine changes between "pre-pandemic" and "in-pandemic" periods. Equity will be assessed through stratification by sociodemographic variables (biological sex, neighborhood income quintile, receipt of housing subsidy, health service delivery area, rurality).

Results: This study is in progress. Percent change in the level and slope of each indicator's trend will be reported. Single ITS will identify the effect of the pandemic on each outcome in the dementia group only. Controlled ITS will identify whether changes observed in OALwD differ from those observed in older adults without dementia. Stratified analyses will be reported to assess differences in effects across equity factors. Together, observed changes in the population-level indicators of quality care and differences across the equity factors will inform an interpretation of the overall effect of the pandemic on quality of care for community-dwelling OALwD in BC.

Conclusion: We will determine whether quality of care changed during the pandemic and whether changes differed for OALwD. This knowledge will inform delivery of high quality, proactive dementia care, now and during future public health crises. It also creates opportunities to establish regular quality monitoring to inform care planning and policy.

F3.4 - Hospital Harm: Analyzing Burden on Canadian Hospitals

Presented by: Viachaslau Herasimovich

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Background and Objectives: Canadian Institute for Health Information (CIHI) reports a Hospital Harm measure of adverse events, which captures unintended occurrences of harm in acute care hospitals that could have been potentially prevented. The objective of this study was to estimate the burden of hospital harm on hospital resources and analyze rates of potential reduction in hospital bed occupancy resulting from hospital harm prevention.

Approach: We analyzed all acute care admissions for fiscal years 2018 to 2022 in Canada (excluding Quebec) using the Discharge Abstract Database. Hospital harm was calculated using standard CIHI methodology.

The Rate of Potential Reduction (RPR) in Length of Stay (LOS) was calculated as: $(\text{average LOS for patients with harm} - \text{average LOS patients without harm}) * \text{number of patients with harm} / \text{Total LOS} * 100\%$.

RPR was calculated for the total length of hospital stay (TLOS), acute portion of the hospital stay (ALOS) and alternative level of care (ALCLOS) with breakdowns by province, hospital peer group, main patient service and patient group.

Results: In FY2022, 6% of hospital stays in Canada (excluding QC) involved hospital harm, accounting for 25.8% of total patient days. If their TLOS had matched patients without harm, a significant 17.8% reduction in hospital bed occupancy would have been realized (compared to 16.2% in FY2018). RPR for ALOS and ALCLOS were 16% and 24%, respectively. Notably, the RPR for surgical patients (28.5%) was nearly double that for medical patients (15%). Surgical patients with harm across Canada spent an additional 1.2 million days in hospitals. Teaching hospitals bear the highest burden, with a RPR of 20.5%, while small community hospitals have RPR of 11.7%. This difference is even more pronounced in ALOS, with RPR of 26.4% for teaching hospitals and 13.9% for small community hospitals.

Conclusion: Understanding the substantial impact of preventable harm on hospital bed occupancy underscores the urgent need for targeted interventions. Surgical patients, in particular, require focused attention, emphasizing the pivotal role of teaching hospitals in addressing these challenges for an overall enhancement in patient outcomes.

F3.5 - What are we waiting for? Delayed healthcare leads to poor patient outcomes.

Presented by: Laura Payant & Elaine Rose

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Background and Objectives: Longer than expected wait times to receive medical and surgical care was a reality many Canadians experienced prior to the pandemic. The COVID-19 pandemic added further strain to the healthcare system. Wait time has been used as an indicator to measure access to the healthcare system. This study seeks to highlight the connection between wait time and patient safety by analyzing wait time related medico-legal cases, and to identify factors contributing to delayed care.

Approach: We conducted a retrospective descriptive analysis of medico-legal cases including civil legal actions, complaints to regulatory bodies and hospitals closed between 2013 and 2023, with an allegation or peer expert criticism of excessive wait times. Cases not occurring in a hospital setting were excluded. A trending analysis was performed to check whether the volume of complaints has changed over time. We examined the type of care and the healthcare related patient harm associated with excessive wait times. Using an in-house developed framework, we identified provider-, team- and system-level factors that may have contributed to patient harm.

Results: There were 313 medico-legal cases that met the extraction criteria. Between 2013 and 2023, the number of wait time related complaints increased. Patients alleged excessive wait times in 265 cases whereas peer experts were critical of wait times in 85 cases. Criticisms were most often related to waiting in the emergency department, waiting to see a specialist, and waiting for diagnostic testing. In some cases, wait times led to a delayed diagnosis and resulted in disease progression or death. Of the 318 patients in this dataset, 125 suffered healthcare related harm. The leading factors contributing to excessive wait times include limited resources, a failure to act on urgent referrals due to inadequate office procedures and a breakdown in communication among physicians during the consultation process.

Conclusion: Extensive wait times threatens patient safety. Patients waiting for diagnostic testing, for surgery or to see a specialist can experience a delayed diagnosis and progression of disease. Limited resources, and inadequate systems to ensure communication among healthcare providers, increases medico-legal risks for physicians and can contribute to patient harm.

F4.1 - Concussion in a geriatric population and gaps in healthcare utilization by elderly patients: a retrospective population-based study in Ontario

Presented by: Narhari Timilshina

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Background and Objectives: The elderly population is the largest consumer of health services and critical care resources in Ontario. There is perception in the healthcare system that concussion/mild traumatic brain injury (TBI) is only an injury of younger adults. Despite the high prevalence of concussion in the geriatric population, healthcare utilization and care gaps have not been well studied at the population level. We examined care pathways of older adults with concussion to determine their healthcare utilization.

Approach: We used provincial-level administrative publicly funded health services data (i.e., CIHI_DAD, NACRS and OHIP). The Ontario residents with concussion/ mild TBI by physician between 2016 to 2021 were identified. Incidence of concussion, acute care hospitalization, length of stay, mortality, time to follow up with primary care, emergency department (ED) visits and incidence of fall were tracked in the first year after injury. Descriptive and analytical statistics were conducted. Age and sex adjusted incidence and quality indicators (QIs) were calculated with 95% confidence limits. Variations in healthcare utilization were explored according to age group, sex, geographic region, and income quintile.

Results: 1,075,791 concussion/mild brain injury cases were identified between 2016 - 2021; 164,776 cases of these were older adults (≥ 65 years). The age-adjusted incidence was twofold higher in the oldest group (18.91 per-1000 for 80+ years age group vs. 8.02 per-1000 for those 65-79 years). Higher incidence of concussion was observed for those with pre-existing comorbidities (22.44 vs. 7.87 per-1000 without comorbidities). Elderly concussion patients had more ED visits (111.2 per 100 person-year (PY) for 80+ years vs. 86.5 per 100 PY for age group 65-79). The percentage with follow up by a family physician in the 30-days following injury was 80.5%. The incidence of fall among concussion patients was two-fold higher among elderly patients (22.9% in 80+ age group vs. 11.0% in 65-79 years age group).

Conclusion: Older adults with pre-existing comorbidities and mental health issues are at a greater risk of concussion compared with younger adults. Higher ED visits and twice the risk of fall was observed among older persons. Fall prevention policies and identification of care gaps are needed to prevent concussion among older persons.

F4.2 - Antipsychotic Medication Use Among Newly Admitted Long-term Care Residents During the COVID-19 Pandemic in Canada

Presented by: Luke Turcotte

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Background and Objectives: Canadian Institute for Health Information quality indicators demonstrate that the potentially inappropriate use of antipsychotic medications increased among long-term care (LTC) residents during the COVID-19 pandemic. Newly admitted residents are excluded so that medication needs can be evaluated without affecting the publicly reported rate. The objective of our study was to characterize the pandemic's impact on antipsychotic use among newly admitted residents and patterns of initiation/discontinuation within the first 90 days of stay.

Approach: We conducted a repeated cross-sectional study of newly admitted LTC residents in the Alberta, British Columbia, and Ontario between March 5th, 2018, and March 4th, 2021. All residents were assessed using the Resident Assessment Instrument Minimum Data Set (RAI-MDS) 2.0. We fit multivariable logistic regression models to characterize the association between antipsychotic medication use and admission during the pandemic period. We included an interaction term for admission source (hospital vs. community) and adjusted for resident characteristics including behaviours and mental health conditions. Additional models were used to characterize the association between pandemic period and antipsychotic initiation/discontinuation at 90-day follow-up.

Results: A total of 21,612 residents were admitted during the pandemic and over 30,000 in each pre-pandemic comparison period. Antipsychotic use increased during the pandemic period among newly admitted residents from both community (adjusted odds ratio [aOR] 1.20 - 1.29) and hospital settings (aOR 1.21 - 1.23). Residents admitted during the pandemic period were more likely to have antipsychotic medications initiated (aOR 1.25 - 1.26) and less likely to have them discontinued (aOR 0.74 - 0.76) at the time of the follow-up assessment.

Conclusion: To address the increased use of antipsychotic medications among newly admitted LTC residents, health systems should take a whole systems approach that includes deprescribing education and processes in both hospital and long-term care settings, supporting and empowering long-term care teams, and prioritizing a culture of resident- and caregiver-centred care.

F4.3 - The association between long-term care resident language and end-of-life symptom management medication prescribing in long-term care homes in Ontario

Presented by: Colleen Webber

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Background and Objectives: Previous research has demonstrated significant variations in the prescribing of end-of-life (EOL) symptom management medications across Ontario long-term care (LTC) homes. Strong communication between residents and healthcare providers is important to address and appropriately manage EOL symptoms. Communication barriers due to language discordance between residents and providers may pose a barrier to EOL prescribing. The objective of this study was to evaluate differences in EOL symptom management medication prescribing according to LTC resident language.

Approach: This is a population-based retrospective cohort study using health administrative data from ICES. The study population includes LTC residents age 65+ who died in Ontario, January 2017-February 2020. Resident language (Anglophone, Francophone, Allophone) was ascertained from the LTC resident assessment data. Prescription billing claims were used to measure the receipt of any symptom management medication prescription in the last 14 days of life. Included medications were those used to manage common end-of-life symptoms (e.g., pain, dyspnea). We evaluated differences in the receipt of 1+ symptom management medication prescriptions in relation to resident language using descriptive statistics and multivariable regression.

Results: Of the 55,571 LTC residents who died in LTC, the majority (83.6%) were Anglophones, 3.6% were Francophones, and 12.8% were Allophones. In the last two weeks of life, 67.4% of LTC decedents received at least one symptom management medication prescription. The most common medication class was opioids, received by 65.4% of decedents. Prescribing varied across linguistic groups; 56.6% of Allophones received 1+ medication, in contrast to 68.8% of Anglophones, and 71.6% of Francophones. In addition to being less likely to receive an EOL symptom management medication prescription, Allophone residents were also more likely to be transferred out of LTC in the last two weeks of life and die in acute care (27.6% of Allophones, 17.2% of Anglophones, 16.3% of Francophones).

Conclusion: LTC residents are less likely to receive an EOL symptom management medication prescription if their first language is not English or French. They are also more likely to die in hospital. Further research is needed to understand whether providing language-concordant care may mitigate these disparities.

F4.4 - Supports and barriers to person-centred planning in the community-care sector: A qualitative analysis of three perspectives

Presented by: Gillian Young

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Background and Objectives: The community-care sector manages the delivery of health and social services in people's homes and local communities. The sector supports individuals with intellectual and developmental disabilities, physical disabilities, and/or complex medical needs. Person-centred planning (PCP) has been recognized as evidence-based practice in community-care, however there is limited literature on the factors impacting this process. This study aims to identify supports and barriers to the PCP process in the community-care sector.

Approach: We partnered with PHSS, a not-for-profit community-care organization based in Ontario, Canada. We conducted a total of 42 semi-structured interviews, 18 with persons receiving care (i.e., persons-supported) at PHSS, 1 with a family member of a person-supported, 11 with frontline staff at PHSS, and 12 with program executives across different community-care organizations in Ontario, Canada. We asked participants about the PCP process at their organization, including relevant supports and barriers. We relied on PHSS staff as intermediaries in interviews with persons-supported who requested or required further support. We analyzed the data thematically, using a pragmatic, qualitative, descriptive approach.

Results: We identified four key themes on factors impacting the PCP process: the health and capacity of the person-supported; sector challenges; integration between sectors; and community connections and inclusion. Participants described how the health and capacity of the person-supported could impede the PCP process, particularly for individuals who were non-verbal or had difficulty communicating. Adequate funding and staffing were described as sector challenges. Funding was regularly identified as a barrier, while a skilled and dedicated workforce was described as a key facilitator. Several program executives highlighted ongoing staffing shortages widespread across the sector. Participants described a need for increased integration with other sectors including acute care systems. Strong connections with the community were central to the PCP process, although participants also described inclusion and accessibility barriers.

Conclusion: The PCP process is impacted by the health and capacity of the person-supported, funding and staffing levels, and sector, organizational and individual community networks. These findings highlight the importance of addressing challenges through targeted intervention strategies designed to optimize the PCP process and ensure equitable outcomes across diverse community-care populations.

F4.5 - Predicting home care service reduction: factors leading to an individual's choice to place holds on home care service from 2019-2021

Presented by: Katherine Zagrodney

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Background and Objectives: Home care service reductions during the pandemic were driven by home care clients' choice to pause personal support worker (PSW) services. Understanding how socio-demographic and care-related factors affect a client's choice to forego home care services is important in predicting future demand. The study objectives were to examine factors impacting (1) clients' decisions to initiate home care service holds and (2) the duration of service holds during pre-pandemic and pandemic time periods.

Approach: This retrospective cohort study leveraged longitudinal administrative quantitative data from a large Toronto-based home care organization. Following approximately 5,000 clients' decisions stratified by pre-pandemic, early-, and mid- pandemic time periods (January 2019 to July 2021), descriptive statistics, logistic and linear mixed-effects regression analyses were conducted to examine how client socio-demographics (sex, age, marital status, social support, health risk rating, geographic region) and care-related variables (service intensity, number of care programs, type of care, care setting, client tenure, previous hold) affected 1) clients' decisions to initiate a non-hospital hold on their home care services and 2) the durations of these holds.

Results: Holds initiated and hold duration more than doubled in the early-pandemic period, before decreasing back towards pre-pandemic rates in the mid-pandemic period. Most clients who initiated a hold were female (81.5%) with an average age of 76.7 years. Across all time periods, clients living in condensed settings (e.g., apartment complex, retirement home), with more frequent PSW visits and who received a wider range of services were more likely to initiate a service hold, but for shorter durations. Early in the pandemic, holds were more likely to be initiated by clients of older age, who spoke more than one language, and who had more acute care needs; these factors had no significant effect pre- or mid-pandemic.

Conclusion: Findings highlight characteristics of individuals who chose to forego home care services (e.g. for vacations or to limit contacts during the pandemic), providing insights for service planning. Several factors were only significant predictors of hold initiation and duration early in the pandemic, highlighting changes to decision-making in this time.

F5.1 - A qualitative multiple case study on the development of the Patient's Medical Home practices in Canada

Presented by: Aimun Shah

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Background and Objectives: In Canada, accessing comprehensive primary care remains a challenge, with millions of individuals lacking a family physician or facing extended wait times. The Patient's Medical Home (PMH) model is a proposed solution, advocating for the promotion of continuity-based and community-adaptive family medicine. This study aimed to collect data on family medicine practices across Canada that self-initiated adoption of the PMH model, describing the PMH principles incorporated, and understanding the processes that influenced their development.

Approach: Employing a multiple descriptive case study design, family physician leaders and managers from seventeen primary care practice sites across eight Canadian provinces and territories participated in semi-structured interviews. Discussion prompts highlighted the extent to which practices have incorporated interdisciplinary team-based care as well as the processes that facilitated or challenged practice transformation. Data was analyzed using an unconstrained deductive approach to qualitative description, leveraging the Theory of Social Innovation. Two research team members independent appraised four interview transcripts to form an initial coding framework, which was operationalized, updated, and refined by six research team members.

Results: The team composition across the 17 family practices were diverse, including a range of smaller to larger physician teams. Almost all care teams included nurses, and many incorporated a pharmacist and mental health support. The processes to establish interprofessional care teams varied and were dependent on the provincial context. Factors that supported the transition included a practice leader who served as a champion in driving the change, as well as the acquisition of adequate resources and funding. Some practice leaders relied on personal investment or community fundraising, while others engaged in negotiations with regional health authorities. Continuous quality improvement processes were a hallmark of team development. The shift towards interprofessional care was described to have profound benefits for patients, providers, and the health system.

Conclusion: The self-initiated transformation of family practices to interdisciplinary team-based models involves multifaceted processes. The findings generate tailored recommendations for government and health authorities, family practices, and medical educators, including the need for flexible funding opportunities to support team-based transformation and comprehensive monitoring and evaluation systems that assess transformation impact.

F5.2 - CHILD: Canadian Health Indicators for children with Disabilities

Presented by: Mehrnoosh Movahed

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Background and Objectives: In Canada, a recent quality of life or well-being framework was created to guide policymaking; however, the specific needs of children with disabilities (CWDs) are not well represented in this framework and data on well-being of CWDs is remarkably lacking. This study aims to: Identify critical policy indicators of well-being of CWDs; Identify existing data collection instruments measuring these factors; Identify gaps; Suggest a well-being framework to inform research, policy and program development.

Approach: Participatory Action Research with a team of co-investigators that include parents of children with disabilities, representatives of the national data collection agency, national and international childhood disability organizations. 1a. Rapid Review of international and national well-being frameworks and instruments; 1b. Key informant interviews to validate and identify indicators for the well-being of CWDs; 2. Review of Canadian data collection tools addressing the identified indicators; 3. Identify and describe data gaps; 4a. Modified e-Delphi procedure with experts for content validation of suggested framework based on reviews and interviews.

Results: We identified 11 existing global and national frameworks for conceptualizing the quality of life and well-being of children with disabilities and listed validated global metrics for measuring the quality of life and well-being of children with disabilities on a population scale. Nine interviews with key informants identified some indicators that must be considered, including waiting lists for health services, early education and childcare, and housing. Analysis of existing data collection instruments identified indicators across 13 national surveys, 4 of which had been analyzed and data tables produced. We requested access to existing data tables that were not publicly available, and entered all indicators (questions) -existing and analyzed/not analyzed, and missing indicators to the modified e-Delphi process, currently in process.

Conclusion: Stakeholder-driven data collection tools are essential to inform policy. Many important indicators for childhood disability well-being are currently not collected in Canada. This project will develop an evidence-based framework for measuring and monitoring well-being of CWDs; accelerate policy development and inform programs that address the needs of children and families.

F5.3 - Exploring Barriers to and Facilitators of the Adoption of Health Impact Assessment within Ontario's Ministry of Health

Presented by: Stephanie Simpson

All Authors: *Stephanie Simpson¹*

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Background and Objectives: Although population health is predominantly shaped by the public policies of 'non-health' government sectors, Québec remains the only Canadian region to have sustainably implemented Health Impact Assessment (HIA) at the provincial level. This presentation highlights key facilitators of and barriers to the adoption of HIA in Ontario between 2002-2022, and reflects on their implications for future efforts to extend provincial public health further upstream.

Approach: A single holistic case study explored how inter-ministerial policy collaboration has traditionally occurred between Ontario's Ministry of Health and 'non-health' Ministries. As prospective stewards of a provincial HIA strategy, senior policy staff (N=12) were asked about their understandings of their own 'boundary spanning' roles, as well as the Ministry's predominant policy purview. An integrated theoretical framework informed by Bounded Rationality (Simon, 1967) and Normative Institutionalism (March & Olsen, 1989) facilitated this exploration, with interview data triangulated against a range of documents, including policy frameworks, Hansard transcripts, and media releases (N=77).

Results: Ontario's Ministry of Health has been identified as prospective HIA stewards in several instances. However, related advocacy efforts have somewhat paradoxically had to contend with the provincial public health system which, despite its purported upstream orientation, has traditionally employed a behaviouralist approach to health promotion. Enacted through key provincial legislation, including the Ontario Public Health Standards, this appears to both reflect and reinforce 'health' and its antecedents among Ministry staff. Accordingly, inter-ministerial efforts, as brokered through the bureaucratic hierarchy, have traditionally been limited to program and service coordination defined by a clear division of labour between health and 'non-health' Ministries, rather than mitigating the health impacts of policies overseen by the latter.

Conclusion: To enhance the likelihood of future buy-in, HIA proponents are advised to build upon the perceived/actual functionalism afforded by highly-institutionalized policy structures within the Ontario Public Service. This strategy can extend to other initiatives seeking to shift public health further upstream, including public health system reforms following the COVID-19 pandemic.

F5.4 - Findings from a Rapid Scoping Review of Public Health Systems Governance for Intersectoral Action to address Extreme Heat in three Canadian Provinces

Presented by: Stephanie Simpson

All Authors: *Mélanie Seabrook¹, Imaan Umar¹, Patricia Ayala², Sara Allin¹*

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Background and Objectives: Climate change is one of the most urgent crises facing public health systems. While core public health functions such as health surveillance, promotion, and protection are critical to addressing its impacts, the inherently “wicked” nature of climate change requires intersectoral collaboration within and beyond health systems. Our team is therefore working to identify and categorize collaborative governance mechanisms for effective climate action by public health and other stakeholders at the provincial and local levels.

Approach: We conducted a rapid scoping review of local and provincial climate action in British Columbia, Ontario, and Québec between 2005-2023. Chronic and extreme heat were selected as focusing issues given their predominant contribution to climate-related mortality in Canada. A review protocol was developed with a Research Services Librarian, who conducted an academic literature search across ten databases, including PubMed, Scopus, and Web of Science. The research team screened academic articles using Covidence, and conducted targeted grey lit searches through various sources, including public health authority websites. Data from academic and grey resources were extracted using piloted charting templates.

Results: Twenty-three of the 4,332 academic articles screened pertained to public health sector collaborations addressing chronic or extreme heat. Most focused on local response systems in Ontario and Québec, with little direct attention paid to governance mechanisms. Accordingly, several sources of grey literature, including local and provincial legislation, will usefully inform our initial governance categorizations. Early findings from Québec indicate that public health has largely led provincial and regional heat responses, with primary collaborators including Civil Security Departments and Emergency Services. The 2021 “heat dome” remains a key driver of intersectoral efforts in BC, including the provincial extreme heat framework. Finally, the Ontario Public Health Standards require Public Health Units to coordinate their heat responses and tailor local strategies to best respond to specific population needs.

Conclusion: Our findings suggest limited scholarly attention has been paid to collaborative governance for climate action despite the extensive networks already in place. This analysis provides a foundation upon which governance arrangements can be reformed to better support effective intersectoral climate action between public health and other stakeholders across Canada.

F5.5 - Unveiling the Dynamics of COVID-19 Testing Policies: An Analysis of Decision-Making Processes in British Columbia

Presented by: Veena Sriram

All Authors: *Peter Berman^{1, 2}, Veena Sriram¹, Leah Shipton¹, Candice Ruck¹, Toktam Movassagh¹*

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Background and Objectives: COVID-19 testing presented a complex array of challenges across Canadian provinces, including British Columbia (BC). Key issues included a lack of awareness regarding decision-making processes, the types of stakeholders involved in these decisions, and the broad range of factors shaping decisions (e.g. rapid testing policies). Examining the perspectives of diverse stakeholders involved in developing and implementing testing policy in British Columbia is necessary to identify key learnings and opportunities for future health emergencies.

Approach: This BC-based study is derived from cross-provincial comparative research that explores the upstream determinants of the COVID-19 response, particularly the interactions of institutions, organizations, politics, and governance. The qualitative methodology enabled a context-specific analysis that incorporates diverse perspectives. Data was derived from in-depth interviews with leading decision-makers, experts, and other stakeholders in BC, supplemented by extensive document reviews regarding policy decisions. Interviews were structured to elicit perspectives on decision-making, timelines, and influences on the policy process. Document review triangulated and supplemented interviews through a comprehensive assessment of policy decisions and their evolution during critical periods throughout the pandemic response.

Results: The data revealed three dominant themes that influenced testing policy in BC: Firstly, conflicting perspectives within different domains of public health expertise, (ie. microbiology, population health) and between public health experts and elected officials. Testing policy was a contested decision-making space, with contrasting perspectives from microbiologists, public health experts, and elected officials, further shaped by constraints of provincial-federal governance. Secondly, a contrast between the need for a system that rapidly analyzes scientific evidence to make decisions, and the complex and structured systems of government and health authorities, which made holistic decision-making based on evolving data difficult. Thirdly, reasons behind decisions taken were not sufficiently transparent to individuals involved in the policy process, leading to contrasting viewpoints regarding the relevance of 'scientific expertise' in decision-making.

Conclusion: The processes to develop and implement testing policy in BC were characterized by dissent between stakeholder groups and limited transparency regarding the rationale for key decisions. We recommend more transparent communication of policy decision-making to improve collaboration between stakeholders and foster greater trust with the public during public health emergencies.

F6.1 - Difference-in-Differences with Unpoolable Data

Presented by: Sunny Karim

All Authors: *Nicole Austin¹, Erin Strumpf², Sunny Karim³, Matthew Webb³*

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Background and Objectives: In this study, we relax the assumption of data “poolability” in Difference-in-Differences (DiD) estimation. The ‘poolability’ assumption states that data from different jurisdictions can be combined for analysis. In recent years, the ability to pool data has become increasingly restricted due to confidentiality laws that limit the exchange of administrative data between different jurisdictions. Considering this challenge, we propose a regression-based tool for estimating ATT using DiD, when the data is unpoolable (called UN-DiD).

Approach: The UN-DiD approach is designed to run separate regressions for each data “silo”. Since data is siloed, the regression for one silo will not contain any data for the other silo. After obtaining the required coefficients and standard errors (which researchers are allowed to export), we combine them to determine the Average Treatment Effect of the Treated (ATT). We analyze the properties of the UN-DiD estimator through mathematical proofs and simulation studies across various Data Generating Processes to demonstrate the unbiasedness and consistency of the UN-DiD estimator. We also showcase a practical application of our methodology using an empirical example.

Results: The method can also be applied to settings with staggered adoption. The simulations show that the UN-DiD estimator is unbiased and consistent. It can also provide identical estimates of the ATT to the conventional estimator with no covariates. When time varying covariates are added, the coefficients can be the same as the conventional ones, but the standard errors differ. Time varying covariates causes neither the coefficients and the standard errors to be equal with small sample sizes, but converge as sample size increases. Similar findings are also seen in the empirical example. Additionally, the empirical example shows that the UN-DiD is equivalent to the Two-Way-Fixed-Effects estimator as well as the Callaway and Sant’Anna DiD estimators with staggered adoption.

Conclusion: The UN-DiD estimator is designed to facilitate cross-jurisdictional DiD estimation for health researchers who work with confidential data (siloed data) stored in secured facilities. The UN-DiD estimator is both unbiased and consistent, and provides equivalent results to the conventional method with large sample sizes.

F6.2 - Model-Based Estimates of the Cost of Obstetric Evacuation for Fly-In First Nation Communities in Ontario

Presented by: Majd Radhaa

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Background and Objectives: First Nations and Inuit Health Branch (FNIHB) guidelines require First Nations and Inuit birthing persons residing on reserve or in rural and remote areas in Canada to travel to urban centres at 36- 38 weeks gestation age, where they then await labour and birth. The objective of the model-based approach was to estimate the cost of obstetric evacuation for the 33 First Nation communities with no year-round road access (fly-in communities).

Approach: Given the perinatal health disparities between Indigenous and non-Indigenous Canadians, research is needed to inform health policy to improve First Nations, Métis and Inuit maternal-child health. This research is part of an Indigenous led, interdisciplinary, mixed methods research project that examines the economic costs of obstetric evacuation experienced by First Nations communities in Canada.

Due to the complexity and context related to obstetric evacuation, multiple pathways were needed to understand the various scenarios, as such, a decision tree was developed. The journey and its associated travel distances were mapped using a Geographic Information System spatial analysis. Sensitivity analyses were conducted.

Results: The estimated average cost of obstetric evacuation was \$38,551.72 2020 Canadian dollars, comprised of \$14,237.44, \$8,540.28, \$6,564.11, \$5,973.01, \$2,195.20, \$647.92, and \$393.76 representing lost productivity, escort, travel, hospitalization, accommodation, meals, and dependents, respectively. Lost productivity represented the largest cost category. Total costs ranged from CA\$21,719.56 to CA\$41,879.64. The average costs of travel for fly-in First Nation communities in Ontario was CA\$6,564.11.

Conclusion: The research will contribute to understanding the cost comparisons of obstetric evacuation with Indigenous desire-based birthing options available for birthing in-community and closer to home. Future research should develop population-based estimates of obstetric evacuation costs and conduct economic evaluations of culturally safe obstetric services, such as Indigenous midwifery.

F6.3 - A new type 2 diabetes model to estimate the cost-effectiveness of a diabetes prevention program in Alberta, Canada

Presented by: Megan Wiggins

All Authors: Himani Pandey¹, Erin Kirwin^{1, 2}, Arianna Waye³, Jeff Round^{1, 4}, Maki Ueyama¹, Megan Wiggins¹

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Background and Objectives: Approximately 7.4% of Albertans are living with diabetes. Type 2 diabetes mellitus (T2DM) represents over 90% of cases. T2DM is associated with substantial health-related quality of life losses and imposes significant costs on the health systems. Several trials have demonstrated the impact of diabetes prevention programs (DPPs) focused on lifestyle interventions in delaying or preventing the onset of T2DM. Our aim is to assess the cost-effectiveness of a potential DPP in Alberta.

Approach: We develop a microsimulation model that simulates: (i) individual level T2DM progression from normal glucose tolerance to pre-T2DM to T2DM, (ii) the occurrence and timing of eight comorbidities and death, and (iii) correlated progression of risk factors (ex. BMI, blood pressure) over time using risk equations and parameter values sourced from literature. The DPP effectiveness parameters are informed by a large US-based randomized clinical trial reporting outcomes over a 10-year follow-up period. The net costs and health benefits are aggregated over a 15-year time horizon, and a discount rate of 1.5% is applied to both costs and quality-adjusted life years.

Results: We find that under the modelled conditions, implementing a DPP in Alberta is expected to delay T2DM onset and reduce the occurrence of comorbidities, resulting in health gains over a 15-year time horizon, and would represent an efficient use of health system resources. The DPP becomes cost-effective in year nine and has an incremental net monetary benefit of \$4,401 (SE=\$39.33) over a 15-year time horizon. The intervention reduces the T2DM event rate by 23.7% over 15 years compared to standard care, with the number of cases per 100,000 person-years at risk decreasing by 3,661 (SE=11.89). The probabilistic sensitivity analysis results indicate that the DPP has a 98.9% probability of being cost-effective at a WTP threshold of \$30,000.

Conclusion: Our model can be used to inform future funding decisions and define target populations for potential DPPs in Alberta. It also has many other potential applications, such as projecting future T2DM cases and evaluating other interventions, like the introduction of new drugs or other lifestyle management interventions.

F6.4 - The attributable health system costs among those admitted to hospital with community acquired COVID-19 in Ontario between January 2020 and February 2023.

Presented by: Kali Barrett

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Background and Objectives: The COVID-19 pandemic placed unprecedented strains on the hospital system in Ontario, and the resultant health system costs have not been described. This study seeks to describe and evaluate the health costs directly attributable to COVID-19 among those admitted to Ontario hospitals with community acquired COVID-19 between January 2020 to March 2023.

Approach: This is a phase-of-care, prospective cohort study that uses individual level health administrative databases held at ICES in Ontario. Adults admitted to hospital with community acquired COVID-19 were identified using diagnostic codes in the Discharge Abstract Database and laboratory test results for SARS-CoV-2 in C19INTGR, and were propensity score matched to a historical cohort drawn from the Ontario population. We used multistate-modelling to estimate time spent in each phase of care and generalized estimating equations to determine the attributable costs for COVID-19 per phase of care. Results are reported by severity of illness and wave of the pandemic.

Results: Between January 1, 2020 and February 28, 2023, 95,722 Ontarians were admitted to hospital with community acquired COVID-19. Of those, 27,275 (28.5%) died, and almost half (49.8%) of the deaths occurred during the hospitalisation. Among those who died after discharge from hospital, 2,984 (21.8%) died within a month of leaving hospital. Many cases were admitted to an intensive care unit (ICU) (18,252, 19.1%), and most admitted to ICU received invasive mechanical ventilation (10,007, 54.8% of ICU admissions). Extracorporeal membrane oxygenation was used in 268 cases (0.3% of all, 1.5% of ICU admissions). The average cost per hospitalisation was \$24,763, 95% CI [\$24,484 -\$25,043], and the median cost was \$13,025 (IQR \$13,176). The sum of costs for all COVID-19 hospitalisations during the study period is \$2,370,439,914.

Conclusion: Our results quantify the significant clinical and financial burden that SARS-CoV-2 placed on the Ontario health system. Results of attributable costs due to COVID-19 will be available shortly, and we would be pleased to share these results at CAHSPR. These data can inform future pandemic planning work.

F7.1 - Health services use of newcomers to New Brunswick

Presented by: Chandy Somayaji

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Background and Objectives: The surge in New Brunswick's (NB) population, the highest in over four decades, is propelled primarily by immigration. Studies suggest a decline in immigrants' health over time, potentially exacerbated by barriers to healthcare access. This study examines health service use by newcomers in NB, contrasting it with longer-term residents. It aims to discern patterns in healthcare utilization to inform potential policy interventions that could sustain newcomers' health and mitigate long-term healthcare costs.

Approach: Our approach utilizes longitudinal administrative data, incorporating both descriptive and regression analyses to compare health service usage among newcomer and established populations in NB. We categorized newcomers, defined as residents of less than five years, and segmented them into specific immigrant groups. The study investigates four key health services: walk-in clinics, ERs, GPs, and hospital admissions, adjusting for demographic and socioeconomic factors. Logit models assess the likelihood of service usage, facilitating nuanced comparisons across immigrant categories and with non-immigrant residents, while accounting for variables such as arrival cohort and duration of residence.

Results: Recent immigrants primarily frequent walk-in clinics, potentially due to immediate healthcare needs or barriers accessing primary care. Long-term immigrants gradually shift towards GPs, suggesting a transition towards established care and preventive health measures. International students show minimal healthcare engagement, likely due to their generally robust health and alternative care access through educational institutions. Conversely, refugees exhibit increased ER visits and hospital admissions, possibly reflecting unmet health needs upon arrival. The study's temporal scope limits the full capture of the 'healthy immigrant effect', which may alter utilization patterns over an extended period. Furthermore, alternative healthcare platforms, which rose to prominence during the pandemic, remain unaccounted for, signalling an area for future research to enrich our understanding of health service usage amidst changing circumstances.

Conclusion: The findings illuminate the need for NB's healthcare policies to adapt to the diverse and changing needs of its immigrant population. Enhancing access to culturally responsive healthcare and reducing barriers can significantly improve health outcomes for newcomers. This approach is vital for facilitating successful integration and promoting long-term retention.

F7.2 - Comparison of long-term health care use among patients with and without pre-existing disabilities following hospitalization for SARS-CoV-2 infection

Presented by: Hilary Brown

All Authors: *Hannah Chung¹, Hilary Brown², Susie Goulding³, Fahad Razak², Yona Lunsky⁴, Chaim Bell², Amol Verma², Samantha Lee¹, Allan Detsky², Margaret Herridge², Therese Stukel¹, Kieran Quinn², Angela Cheung²*

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Background and Objectives: People with disabilities are at elevated risk of SARS-CoV-2 infection and severe outcomes, yet the impact of COVID-19 on their long-term health services use is unknown. We compared outcomes among people with and without pre-existing disabilities within the first year following hospitalization for SARS-CoV-2 infection to help inform health resource planning.

Approach: We conducted a population-based cohort study in Ontario, Canada of adults with disabilities (n=25,315) and without disabilities (n=15,946) who were hospitalized for SARS-CoV-2 infection between January 25, 2020 and February 28, 2022. We calculated age and sex-standardized rates per 1,000 person-months of follow-up after discharge from hospital for ambulatory care visits, emergency department visits, hospital admissions, palliative care visits, and diagnostic testing. We compared these outcomes using rate ratios (RR) comparing (1) people with and without disabilities and (2) people with disabilities receiving disability-related income supports and people with disabilities not receiving these supports to people without disabilities.

Results: People with disabilities had a higher age-sex standardized rate of ambulatory care visits (1395.8 vs. 999.9 per 1,000 person-months, RR 1.40), emergency department visits (112.7 vs. 58.5, RR 1.93), hospital admissions (51.4 vs. 26.0, RR 1.98), palliative care visits (7.5 vs. 4.4, RR 1.68), and diagnostic tests (376.4 vs. 227.9, RR 1.65) in the 1 year following discharge from hospitalization for SARS-CoV-2 infection, compared to people without disabilities. Age-sex standardized rates of these outcomes were even higher in people with disabilities receiving disability-related income supports (ambulatory visits: 1525.6 per 1,000 person-months; emergency department visits per 1,000 person-months: 255.3 per 1,000 person-months; hospital admissions: 102.3 per 1,000 person-months; palliative care visits: 9.0; diagnostic testing: 490.9 per 1,000 person-months).

Conclusion: People with disabilities had higher health care use than those without disabilities in the year following hospitalization for SARS-CoV-2 infection. Findings underscore the importance of considering accessibility-related needs in the planning of long-term health resources for patients hospitalized for SARS-CoV-2 infection, and of enhanced supports for those with disabilities.

F7.3 - Ontario Hospital Triage-Avoidant Strategies Employed in ICUs During the First Waves of the COVID-19 Pandemic

Presented by: Lyndsay Harrison

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Background and Objectives: During the first three waves of the COVID-19 pandemic, many hospitals experienced large surges in demand for critical care. Most avoided overt patient triage by employing triage-avoidant strategies including: surging intensive care unit (ICU) capacity and transferring patients between institutions, which may have led to inequitable negative effects on patients. This study's objective was to describe the impact of implementation of these strategies on patient outcomes to facilitate more informed decision-making around their use in future.

Approach: This was a population-based cohort study of patients admitted to ICU in Ontario during the first three waves of the COVID-19 pandemic and the preceding year. All ICU admissions and ICU transfers were identified. Characteristics of patients (e.g. age, sex, reason for admission) and hospitals (region, type) are reported. Patient outcomes of triage-avoidant strategies were modeled using regression to control for patient and hospital characteristics. Outcomes included: death in hospital, death within three months of discharge, readmission within one month. Findings are summarized at hospital and region levels. All analyses completed using health administrative data at ICES.

Results: Analyses are in progress and will be completed before the conference. During the first three pandemic waves (February 26, 2020 - July 31, 2021) there were 174,192 ICU admissions in Ontario compared to 188,341 ICU admissions in the corresponding pre-pandemic time (February 26, 2018 - July 31, 2019).

We will report weekly percent change in ICU bed occupancy (surge) in each wave of the pandemic compared to pre-pandemic, and average length of stay. We will also report the frequency of patient transfers and model the effect of each strategy on patient outcomes. Results will be reported by region, pandemic wave, and key patient characteristics to identify potential subgroups which may have been most negatively impacted by the use of these strategies.

Conclusion: This study highlights the variation in triage-avoidant strategies used across Ontario's ICUs during COVID-19 and their patient impact, with particular focus on those who are most negatively affected by their use. This data will better inform implementation of triage-avoidant strategies in future times of surge in ICU resource need.

F7.4 - Impact of the COVID-19 pandemic on access to sexual and reproductive health services for women, transgender, and non-binary people with disabilities in Canada: A cross-sectional survey

Presented by: Sidrah Zafar

All Authors: Carmela Melina Albanese¹, Hilary Brown¹, Meredith Evans¹, Sidrah Zafar¹

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Background and Objectives: The COVID-19 pandemic has disrupted health systems and deprioritized sexual and reproductive health (SRH) services, with disproportionate impacts on underserved populations. People with disabilities experienced SRH disparities before the pandemic. However, little is known about the experiences of people with disabilities accessing SRH services during the pandemic. Our objective was to examine the impacts of the COVID-19 pandemic on the SRH service access of women, transgender, and non-binary people with disabilities in Canada.

Approach: We administered an accessible Canada-wide survey to n=116 women, transgender, and non-binary people aged 18 years or older with physical, sensory, developmental or intellectual, cognitive, and psychiatric disabilities about their experiences accessing SRH services during the COVID-19 pandemic. Participants were recruited using purposive sampling via disability organizations, social media, and community networks. We calculated the proportions of participants reporting need for and use of six SRH services (contraception, safer sex barriers, sexually transmitted infection [STI] screening, cervical cancer screening, gender-based violence supports, and pregnancy/postpartum care); barriers obtaining these services; and resulting delays and cancellations during the COVID-19 pandemic.

Results: Of participants who indicated a need for each respective SRH service, 34.1% indicated experiencing a barrier to accessing contraception, 36.2% to safer sex barriers, 50.0% to STI testing, 62.9% to cervical cancer screening, 55.6% to supports for violence, and 84.6% to pregnancy/postpartum care. Participants identified long wait times; clinic and health centre closures; unavailable appointments; lack of disability-related accommodations; and fear of contracting COVID-19 as the most common barriers. Participants also reported delayed and prevented access to all of the six services examined, with the highest proportions of participants reporting cervical cancer screening as being delayed (32.9%) and pregnancy/postpartum care as being prevented (23.1%).

Conclusion: Our survey showed a significant need for, but barriers accessing, SRH services for people with disabilities during the COVID-19 pandemic, showing the SRH needs of people with disabilities have not been adequately addressed. Future pandemic planning and response activities must be disability-inclusive and data-driven, and must prioritize accessible SRH services.

F7.5 - Breast cancer treatment among people with intellectual or developmental disabilities in Ontario, Canada

Presented by: Rebecca Hansford

All Authors: Alyson Mahar¹, Helene Ouellette-Kuntz¹, Rebecca Hansford¹

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Background and Objectives: People with intellectual or developmental disabilities (IDD) are more likely to die following a cancer diagnosis than people without IDD. Exploring differences in receipt of breast cancer treatment among people with IDD is one potential pathway to understanding factors associated with the worse cancer survival observed among individuals with IDD diagnosed with breast cancer. The objective of this study was to descriptively compare breast cancer treatment among Ontarian adults with and without IDD.

Approach: A population-based retrospective cohort study was conducted using administrative health data. Adult females diagnosed with breast cancer were included (2007-2018). IDD status was identified using an established algorithm. We examined multiple treatment outcomes including receipt of surgery, radiation, and chemotherapy. For surgery, we specifically examined surgical pathway (none, lumpectomy only, mastectomy only, and ≥ 2 surgeries). We report frequencies and percentages for people with and without IDD as well as standardized differences (std) comparing the two groups. A std ≥ 0.1 was considered significant. These findings are examined for the whole cohort and in stage-specific strata.

Results: The full cohort included 113,204 individuals. In the stage-specific strata, there were 48,546, 38,402, 13,371, 5415, and 6492 individuals with stages I, II, III, IV, and unknown. In the full cohort, differences in treatment were observed. A higher proportion of individuals with IDD had no surgery receipt (IDD= 17.7%; no IDD= 13.2%; std= 0.125). Further, people with IDD had a lower proportion of only lumpectomy but a higher proportion of mastectomy only (IDD; lumpectomy= 37.3%; mastectomy= 32.5%; no IDD: lumpectomy= 50.8%; mastectomy= 25.0%; std= 0.273; std=0.167). Radiation receipt was lower among individuals with IDD (IDD= 27.4%; no IDD= 49.2%; std=0.46). Similarly, fewer people with IDD received chemotherapy relative to those without IDD (IDD= 29.3%; no IDD= 49.2%; std=0.298).

Conclusion: Among breast cancer patients, adults with IDD appear to receive different treatments than those without IDD. Research examining guideline-recommended cancer care specifically is needed to inform the extent to which these disparities may lead to inequities in breast cancer survival among people with IDD.

F7.6 - WOMEN'S EXPERIENCES OF TECHNOLOGY-FACILITATED SEXUALIZED VIOLENCE: A QUALITATIVE SCOPING REVIEW

Presented by: Nicole Doria

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Background and Objectives: The surge in popularity of digital technologies has presented a new avenue for sexualized violence to occur. This phenomenon is often referred to as technology-facilitated sexualized violence (TFSV). The aim of this scoping review was to map the existing literature on women's experiences of TFSV and highlight recommendations for future research.

Approach: This scoping review was guided by Arksey and O'Malley's framework and Levac's recommendations. The systematic approach involved formulating a research question, identifying and selecting relevant studies, charting the data, and summarizing the findings. The search strategy was developed in collaboration with a medical librarian and incorporated keywords related to sexualized violence and digital technologies. Inclusion criteria focused on adult women's first-hand experiences of TFSV, published in the last ten years. The databases searched identified 2367 studies. Title, abstract and full text screening was conducted in Covidence by two reviewers, and 18 studies met inclusion for full review.

Results: Through employing qualitative content analysis, it was found that women commonly experience TFSV in diverse forms, including cyber harassment, cyberstalking, explicit images, revenge porn, and sexual coercion. These online occurrences often materialize into instances of offline sexualized violence. TFSV is mostly perpetrated by strangers using various digital technologies, and women often view these experiences as a result of men exerting power and control over them. Women reported negative emotions and challenges from these experiences and spoke about the obstacles of reporting, which rarely resulted in resolution or justice.

Conclusion: The growing issue of TFSV for women in today's digital world demands increased attention from researchers, medical professionals, technology companies, and judicial systems. Despite recent academic focus, TFSV remains understudied. The provided recommendations in this review aim to advance research and guide the development of effective prevention strategies.