

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Completely Plant-Based Diets That Meet Energy Requirements for Resistance Training Can Supply Enough Protein and Leucine to Maximize Hypertrophy and Strength in Male Bodybuilders: A Modeling Study
- Author(s):** David Goldman, Cassandra Warbeck, Micaela Karlsen
- Background:** Despite increasing awareness of plant-based diets for health and athletic performance, athletes are cautioned that careful dietary monitoring is necessary. Whether commonly consumed plant-based diets are nutritionally adequate for maximal muscular hypertrophy remains unknown.
- Purpose:** This modeling study assessed the nutrient composition of completely plant-based diets scaled to the caloric demands of maximal muscle mass and strength development in adult male bodybuilders.
- Methods:** To model calorie requirements, anthropometric data from bodybuilders were input into the Tinsley resting metabolic rate prediction equation, and an appropriate physical activity factor and calorie surplus were applied. Dietary data from a large cohort following completely plant-based diets were then scaled to meet these needs. Primary outcome measures were protein and leucine intakes for adult male bodybuilders. Secondary outcomes were micronutrient intakes.
- Results:** Modeled intakes for nutrients of interest were calculated as 1.8 g/kg/day of protein and 2.75 g/meal of leucine, which surpass mean requirements for maximal increases in muscle mass and strength and muscle protein synthesis, respectively. Daily levels for all micronutrients, except vitamin D, also exceeded requirements. Saturated fat levels were aligned with dietary guidelines, although sodium levels exceeded recommended limits.
- Conclusions:** Consumption of larger portions of commonplace plant-based diets, scaled to meet the energy demands of maximal accrual of muscle mass and strength, satisfied protein and leucine requirements without the need for additional planning.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** The Viability of Virtual Decision-Making Capacity Assessments (MDCA)-Opening New Doors to Preventative and Proactive Healthcare for the Elderly
- Author(s):** Lesley Charles, Eileen Tang, Peter Tian, Karenn Chan, Suzette Bremault-Phillips, Bonnie Dobbs, Camelia Vokey, Sharna Polard, Jasneet Parmar
- Background:** With the Canadian population rapidly aging, there are more elderly who require services to meet their care needs. Specifically, there is an increased demand for Decision-Making Capacity Assessments (DCMA) for those experiencing cognitive changes. Telemedicine offers a way to enhance equitable access to care, especially for those in rural settings and those experiencing mobility issues
- Purpose:** To determine the current prevalence, characteristics, barriers, and facilitators of virtual DMCA during the COVID-19 pandemic.
- Methods:** The survey collected data on 25 variables to understand the demographic and training background of healthcare providers performing DMCA.
- Results/  
Conclusions:** Conducting DMCA virtually is currently an infrequent undertaking. Addressing barriers and the need for facilitators is necessary for the implementation of virtual DMCA to become widespread. In the practicing population, there are insightful suggestions which indicate the viability of virtual DMCA, but there remains a degree of ambiguity or skepticism among some respondents regarding the effectiveness of virtual DMCA. These beliefs need to be reexamined and refuted to improve care for patients.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Enhancement of Generalism and EDI Curricula in Undergraduate Medical Education: A Worked Model
- Author(s):** Kayla Bailey, Sanja Kostov
- Background:** Canadians experience poor access to generalist healthcare and health disparities related to social and structural determinants of health (SSDOH). Revisions to undergraduate medical education (UME) are necessary to ensure that graduates can competently provide socially accountable care that aligns with the needs of patients. Evidence supports the inclusion of generalist and equity, diversity and inclusion (EDI) content in curriculum to foster such competency.
- Methods:** Five UME RMUC DL cases were systematically revised attending to generalism and EDI, and incorporation of SSDOH content and objectives. Throughout the revision process, challenges and insights gained were documented. Following curricular delivery in the fall of 2023, students (N=160) and DL preceptors (N=20) provided quantitative and qualitative formal and qualitative informal program evaluation.
- Results:** During the revision process several challenges were identified: (1) lack of commercially available media that includes members of equity-deserving groups, (2) efforts needed to appropriately weave SSDOH into the fabric of the cases, and (3) detecting content that was subtly paternalistic/lacking a trauma-informed approach. Preliminary evaluation suggests that the revisions positively impacted the curriculum and identified areas for further improvement.
- Conclusions:** Through an ongoing iterative approach this curricular innovation outlines challenges encountered and lessons learned during the revision process. Preliminary evidence suggests that incorporation of generalism, EDI and SSDOH into the RMUC DL curriculum has been successful. Inclusion of this content has the potential to support students' transformative learning of non-medical expert CanMEDS objectives in medicine.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Exploring the Attitudes of Physicians Towards Provision of Medical Assistance in Dying for Dementia, Psychiatric Illness and Mature Minors, a Scoping Review.
- Author(s):** Irma Kritzinger, Denyse Hodgson
- Background:** Legalization of assisted dying is expanding globally with access being granted to more patient groups. This means that more physicians will be required to become involved in provision of this service. Research on physicians' attitudes towards assisted dying for patients with dementia, psychiatric illness and mature minors can assist with education and implementation of expanded services.
- Objectives:** 1. Explore physician views on assisted dying for the lesser-known legal eligibilities dementia, psychiatric illness and mature minors. 2. Synthesize data on the research question from a broad global perspective. 3. Identify specific areas where current research is lacking or unclear, to inform any future qualitative research on this question.
- Methods:** A scoping review was done using search terms *Physician, Medical Doctor, Medical Practitioner, Euthanasia, Assistance in dying, Medical assistance in dying, Voluntary assisted dying, Assisted suicide, Physician-Assisted suicide, Assisted-dying, Physician-Assisted dying, Attitude, View, Perspective, Opinion, and Approach*. Information sources were MEDLINE, PubMed, Web of Science, Scopus, Embase, ProQuest Dissertations and Theses, Directory of Open Access Journals, and the websites of medical associations of countries where assisted death is legal. Data extraction was done on selected sources of evidence, and further syntheses was done with thematic synthesis.
- Results:** A total of 2718 sources of evidence were initially identified. The final list of 25 sources of evidence were compiled after further refining searches. Common themes were identified during thematic analysis.
- Conclusions:** There is lower to mid-level support for assisted dying in these patient groups, with significantly less support from religious physicians and lower-level support for palliative care versus assisted dying for dementia and minors. There is more support for assisted dying in dementia and psychiatric patients if physical illness or illnesses are also present. General practitioners are most supportive of assisted dying for dementia and psychiatric patients and pediatricians in the case of minors. Physicians are having trouble with legal frameworks and clinical guidelines when assessing this group of patients for assisted dying. A need for ongoing education and support by specialists were established. Several gaps in research were found and there is room for research on assisted dying in minors, multicounty studies, qualitative studies, and studies in countries with some or no legalization for assisted dying.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

**Title:** Puff, Puff? Pass

**Author(s):** Martin Tieu , Haochen Yan, Brittany Calibaba

**Background:** Part of modern healthcare involves considering environmental impact on our patient's wellbeing. Healthcare in Canada accounted for 4.6% of national greenhouse gas emissions during 2009–2015, underscoring the significance of addressing healthcare's carbon footprint. Targeting the use of hydrofluorocarbon propellants in pressurized metered-dose inhalers (pMDIs) and substituting with dry powder inhalers (DPIs) presents a tangible opportunity for carbon emission reduction within primary care clinics in Canada.

**Purpose:** This study aims to assess the feasibility and impact of replacing pMDIs with dry powder inhalers (DPIs) where appropriate within primary care settings to mitigate carbon emissions. We developed a decision support tool to help clinicians in substituting pMDIs with DPIs.

**Design:** We have created a tool that was integrated into our Electronic Medical Record (EMR) system (MedAccess); it identifies and alerts clinicians when patients are prescribed higher-emission inhalers, prompting consideration for alternative DPIs. Clinicians have the discretion to modify prescriptions through a streamlined process within the EMR.

**Setting:** Macewan University Health Centre (MUHC).

**Participants:** Family physicians and residents at MUHC.

**Outcome Measures:** Using EMR-generated reports, we compared prescription rates of pMDIs versus DPIs before and after tool implementation to assess changes in the ratio of inhaler types.

**Results:** Prior to tool implementation, pMDIs accounted for 41.2% (156) of inhaler prescriptions compared to 58.7% (222) for DPIs over a 6-month period. Following tool implementation, the proportion of pMDIs decreased to 33.0% (68), compared to DPIs 67.0% (138), representing an 8.2% reduction in pMDI usage.

**Conclusions:** While further research is necessary to generalize findings to other clinics or settings, initial results suggest a promising reduction in pMDI prescriptions.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** An Aspirin a Day Keeps Pre-eclampsia Away: QI Work-in-Progress
- Author(s):** Jordan Stariha, Jeenan Kaiser, Sanja Kostov
- Background:** Hypertensive disorders in pregnancy are a significant cause of morbidity and mortality, complicating almost 10% of pregnancies in Canada. The Society of Obstetrics and Gynecology of Canada (SOGC) emphasizes the importance of early identification and initiation of daily acetylsalicylic acid (ASA) in the first trimester ± calcium supplementation to prevent pre-eclampsia, and have outlined criteria to assist practitioners. Despite proven benefit, the uptake of this practice has been slow in Canada and has been speculated to be related to inaccessibility of early pregnancy care, especially in rural areas; moreover, emphasizing an important gap that could be filled by improved access to primary care providers, specifically family medicine obstetrics physicians (FMOBs).
- Purpose:** Identify how closely our FMOB group practice adheres to the SOGC guidelines for recommending initiation of ASA in pregnancy.
- Methods:** Prenatal patients receiving care by the Mom Care Docs FMOBs who attended a visit prior to 16 weeks gestation (N=100 per audit cycle). Patients who are at higher risk for pre-eclampsia (by meeting either 1 high-risk criterion or ≥2 moderate-risk criteria) are appropriately identified, and counseled to take oral ASA from 12-16 weeks until 36 weeks gestation. Primary: documentation of indication for ASA and counseling discussion. Secondary: documentation of specific criteria met, dose recommended, and whether patient took ASA.
- Results:** Pending. We expect that our data will reveal discrepancies in identifying patients for whom prophylaxis against hypertensive disorders of pregnancy is indicated with ASA depending on their type of risk factors. Armed with this information our practice can develop strategies to assist with identifying patients with these particular factors.
- Conclusions:** Given the established benefits of preventing pre-eclampsia with daily ASA, perinatal care providers should identify at-risk patients early in their pregnancy and recommend preventative treatment with daily ASA. This could be facilitated by educating primary care providers and improving early access to FMOB care.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Patient and Family Experiences of Adverse Events in Pregnancy in Canada From a Multicultural Perspective
- Author(s):** Qiong (Della) Wang, Castrellon M, Nabil K, Bukhari S, Kito L, Seyoum M, Obwona Ogaba W, Nielszen I, Godlu A, D'Souza R, Santana M.
- Background:** Maternal morbidity can be conceptualized in multiple and unique ways by healthcare professionals and patients. For pregnant persons and their families, adverse events in pregnancy can often extend beyond the scope of clinical diagnoses.
- Purpose:** To understand patient and family experiences of adverse events in pregnancy. For the purposes of this study, we defined pregnancy as beginning from the time of conception to 6 weeks postpartum.
- Methods:** The study was conducted entirely online, and individuals with lived experience of adverse events in pregnancy in Canada were engaged through focus group discussions and individual semi-structured interviews. Thirteen participants from diverse backgrounds and with a range of pregnancy experiences.
- Results:** Five key themes included: (1) access to appropriate, timely, coordinated care and follow-up; (2) lack of transparent communication from healthcare providers and the ways power differentials and need for urgent action affected shared decision-making; (3) cultural differences between participants' traditions and Canadian pregnancy care practices; (4) mental health impacts as participants tried to access diagnoses for things that 'didn't feel right' and when struggling to access care and understand 'why'; (5) supports and resources most helpful in managing the morbidity that participants felt were missing. Five actionable recommendations were identified for dissemination and implementation of study findings.
- Conclusions:** Communication and a more compassionate, culturally informed, and safe patient-family-centered approach were identified by patients as the priorities to improve maternal care in the multicultural Canadian context. These results also prove peer-to-peer methodology can be used to inform future maternal morbidity research, health policies, and clinical care standards.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Intolerance Upon Statin Rechallenge: A Systematic Review and Meta-analysis of Randomized Controlled Trials
- Author(s):** Roni Kraut, Faith Wierenga, Elisa Molstad, Christina Korownyk, Danielle Perry, Liz Dennett, Scott Garrison
- Background:** Although statins are often discontinued when myalgia arises, a causal relationship may not always exist. How well-tolerated statins are when rechallenge is blinded and controlled is unclear.
- Purpose:** To evaluate the success of statin rechallenge versus matched placebo in those who were previously statin intolerant.
- Design:** Systematic review and meta-analysis Medline, Embase, CINAHL Plus, Scopus, and CENTRAL were searched from inception to May 1, 2023. Eligible trials were randomized controlled trials with parallel or crossover designs examining statin rechallenge in statin-intolerant adults. Two independent reviewers selected studies, extracted data, and assessed risk of bias (Cochrane Collaboration's risk-of-bias tool 1). Relative risk (RR) and mean difference (MD) were estimated using fixed effect Mantel-Haenszel statistics.
- Outcome measures:** Intolerance (primary outcome) and myalgia or global symptom score (secondary outcome).
- Results:** Of 1,941 studies screened, 8 met our inclusion criteria (8 to 491 participants from Asia, Europe, North America, and Oceania). Compared to placebo, intolerance was more common in statin users [325/906 (36%) vs 233/911 (26%), RR 1.40, 95% CI, 1.23 to 1.60] and there was no statistically significant difference in myalgia or global symptom score on a 100-point scale [MD 1.08, 95% CI, -1.51 to 3.67]. Limitations include only 1 trial asking participants about intolerable symptoms (vs inferring intolerance from discontinuation or trial withdrawal); the small number of trials; the possibility of attrition bias; and the potential for carryover effects in crossover/n-of-1 trial designs.
- Conclusions:** **Conclusions:** Of those previously intolerant of statins who were rechallenged with a statin and compared to placebo recipients, medication intolerance was more common amongst statin recipients. However, there was no significant difference in mean myalgia or global symptom score between statin and placebo, and only one-third of those previously believed to be statin intolerant were unable to tolerate a statin on blinded rechallenge; one-quarter were intolerant of placebo.



## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

**Title:** The Pragmatic Trials Collaborative

**Author(s):** Roni Kraut, Scott Garrison

**Background:** Pragmatic randomized controlled trials (RCTs) are designed to provide evidence for real life practise, different from the typical RCT design designed to determine benefit in a select population. The Pragmatic Trials Collaborative is a trial group within the department that runs pragmatic randomized controlled trials to address questions relevant to family medicine.

**Purpose:** To explain pragmatic trials and the work of the Pragmatic Trials Collaborative.

**Results:** Five trials are in progress. BedMed is the largest RCT run by family physicians in Canada, involving 3357 participants and 430 family physicians across 5 Canadian provinces. This trial will be the tie breaker in determining whether switching from morning to bedtime blood pressure medications reduces cardiovascular events and mortality. BedMed-Frail is a similar trial but in the long-term care population, it involves ~800 residents in 16 Alberta long-term and continuing care facilities. Final results of both will be reported in 2024. OptimizeBP is a deprescribing trial in long-term care facilities with clinical outcomes. It has ~450 residents from 22 Alberta long-term care facilities. Deprescribing is effective with most residents in the intervention arm having a  $\geq 50\%$  reduction in dose of at least 1 antihypertensive. Final results are expected in 2025. MiniMed is a deprescribing trial in family medicine clinics in Alberta, reducing doses of common medication in community dwelling individual  $\geq 80$  years old. It is currently recruiting in Alberta. We also have recently obtained a grant for our next trial, an acetaminophen deprescribing trial in long-term. Evidence shows acetaminophen, the medication typically used for pain management in long-term care, may not be effective. This trial will help determine the effectiveness of acetaminophen for treating pain in the long-term care population.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Emerging Health Needs of People Who Use Drugs in Central Edmonton
- Author(s):** Ginetta Salvalaggio, Heather Morris, Okan Bulut, Zoe Collins, David Connolly, Campion Cottrell-McDermott, Tariq Issa, Michelle Maroto, Bethany Piggott, Abbie Raza, Angela Staines, Marliss Taylor, Elaine Hyshka
- Background:** People Who Use Drugs (PWUD) are experiencing a shifting poly-crisis environment with emerging health and social harms. The last major survey of PWUD in Edmonton was in 2014, with many service changes since that time. It is difficult to plan, deliver, and adapt appropriate interventions without community knowledge
- Purpose:** Document the health needs of PWUD against the backdrop of an evolving risk environment.
- Design:** Community-partnered cross-sectional survey. Descriptive data analysis and exploratory comparative analysis.
- Setting:** Central Edmonton, recruitment via non-profit agency collaboration and community outreach.
- Participants:** 503 PWUD living or regularly accessing services within central Edmonton
- Outcome:** Measures: Substance use patterns, sociodemographic variables, and health status.
- Results:** 326 (64.8%) participants identified as men and the average age was 44. 470 (93.4%) participants reported smoking drugs, while 177 (35.2%) reported using drugs via injection. Most participants (303, 60.2%) preferentially used methamphetamine, although opioid use and polysubstance use were also common. Most PWUD also reported currently being unhoused (404, 80.3%) and had experienced an adverse pandemic change in housing status; PWUD whose living situation changed since the start of the pandemic were also more likely to report an increase in drug use (OR=2.94). Common health issues included drug poisoning events, mental health concerns, and cognitive concerns.
- Conclusions:** Central Edmonton PWUD are experiencing a major shift in drug use patterns, socioeconomic circumstances, and health concerns. Healthcare providers need to respond to these emerging trends by adapting the delivery of services to address intersecting health needs.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Improving Primary Prevention and Screening for Cancer and Chronic Disease: Actionable Recommendations for Primary Care
- Author(s):** Donna Manca, Denise Campbell-Scherer, Carolina Fernandes, Eva Grunfeld, Kris Aubrey-Bassler, Aisha Lofters, Tracy Wong, Katherine Latko, Heidi Cheung, Melissa Shea-Budgell
- Background:** There are numerous and sometimes conflicting evidence-based clinical practice guidelines (CPGs) for cancer and chronic disease prevention and screening (CCDPS). Most of these guidelines are focused on specific diseases or conditions; however, primary care providers (PCPs) often attend to patients with multiple conditions and complex care needs. The BETTER program involves a comprehensive intervention provided by a clinician within a primary care practice who acquires advanced skills in CCDPS, the Prevention Practitioner, and meets with patients for a personalized prevention visit.
- Purpose:** To describe the: 1) evidence review process used to identify high-quality CPGs, 2) harmonization of primary prevention and screening recommendations, and 3) identification, development, and refinement of resources and tools for inclusion in the BETTER toolkit, a set of blended actionable tools derived from good evidence that can be used by PCPs to apply CCDPS to practice.
- Methods:** In 2017, the BETTER program conducted a literature review of evidence-based CPGs published between 2010 and 2016. For this update, high-quality international, Canadian, and Provincial CPGs published between 2016 and 2021, focusing on primary prevention and screening of cancer and chronic disease, and applicable to adults ages 40-69 were identified. A Clinical Working Group consisting of Canadian decision-makers, researchers, clinicians, and a patient representative reviewed the high-quality CPGs identified for 19 CCDPS topics within scope for BETTER. Topic review teams synthesized guidelines based on evidence and identified tools and resources to inform patient care.
- Results:** Development of updated care maps and tools that consider family history and risk factor assessment that are tailored to the patient and adaptable to rural, remote, and urban practice settings.
- Conclusions:** The BETTER program developed a process to synthesize and harmonize high-quality CPGs resulting in a suite of resources and tools to assist PCPs with implementing CCDPS guidance in primary care.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Assessing Trauma-Informed Practice in Geriatric Care Provision: A survey of Interdisciplinary Teams at the Glenrose Rehabilitation Hospital
- Author(s):** Smitha Yaltho
- Background:** The trauma-Informed Care (TIC) approach and practice acknowledge that most people have experienced stressors/trauma within their lifetime - that is, outside of one's control - resulting in social, emotional, and physical effects. Such trauma background can also affect patients' ability to feel empowered and competent with regards to managing their self care and medical needs. By better understanding TIC practices, health care workers can better collaborate with patients to further enhance the effectiveness of care delivery (thereby enhancing a patient's feeling of safety and inclusion).
- Objective:** To understand the awareness TIC approaches/practices of geriatric specialists in the care of geriatric patients (e.g., over the age of 65 years).
- Designs:** This is a quantitative study that uses a brief assessment tool (the proprietary TICOMETER© by Bassuk et al., 2017) to measure the level of trauma-informed care (TIC) in human service organizations. The 35 items included in the TICOMETER© represent the strongest indicators of TIC, as recognized by all levels of staff within a single organization.
- Setting:** Glenrose Rehabilitation Hospital (GRH).
- Participants:** 45 professionals/staff who work with the elderly population at the Glenrose Rehabilitation Hospital.
- Outcome Measures:** Awareness of geriatric specialist level of trauma-informed care, staff training needs, and implementation priorities.
- Results:** Composite scores reflect insufficient trauma knowledge and skills; insufficient trusting relationships established; respect for users is fair/needs improvement; insufficient fostering of trauma informed delivery; and fair/needs improvement to promote trauma informed service delivery.
- Conclusions:** *Potential benefits for patients.* Patients feel better heard and feel safe. Less avoidance of care by patients (with enhanced trust in care providers and less avoidance of care with trauma-informed practices).  
*Potential need for enhanced site staff training.* Works better when leadership and site staff are engaged and willing.  
*Potential workforce benefits of TIC training.* Decreased sick days, decreased staff turnover, enhanced work culture (more joy at work), better work efficiency and more effective therapeutic alliances with patients.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

**Title:** Improving Coding Practices for Alternative Level of Care (ALC) in Hospital Family Medicine Units

**Author(s):** Banafsheh Manafian, Zainab Muhammad, Pamela Mathura, Julie Zhang, Tara St Clair, Jordan Herst, Yvonne Suranyi, Chris Carlson, Narmin Kassam

**Introduction:** At the University of Alberta Hospital, many patients are classified as Alternate Level of Care (ALC), occupying an acute care bed when acute care services are no longer required. This classification establishes the hospital ALC timeframe, which is a component of a patient's average length of stay (ALOS) and identifies the barriers/reasons for discharge that could facilitate transition service planning. Additionally, measures the access gap between different healthcare settings and ensures that the hospital ALOS accurately reflects the intensity of care provided.

**Methods:** A cross-sectional data review and quality improvement tools were completed, revealing that patients discharged from Family Medicine (FM) units had the highest non-specific ALC coding (ALC-TBD). A knowledge to practice gap was identified among physicians and nurses, a lack of understanding the ALC definition and completing associated electronic medical record workflows. A multicomponent intervention was developed that included: Medicine program 2-day coding expectation, ALC education, and audit and feedback. The intervention was trialed on two FM units for 3 months (Oct-Dec 2022).

**Results:** ALC code specificity was improved by over 50%, and the time taken to update nonspecific to specific codes decreased from 11 to 2 days. There was a decrease (over 75%) in the number of patients discharged with the ALC-TBD code. Patients whose ALC-TBD code was changed to a specific code had an increased average number of ALC days, this was supported by an increase in the initial ALC code assigned by physicians, suggesting earlier physician ALC designation. The ALOS for one FM unit decreased but increased for the other, suggesting that multiple factors impact this measure.

**Conclusions:** Reducing the ALC days and ALOS for hospitalized patients is a multipronged challenge that requires additional interventions beyond improved coding practices to target the specific discharge barriers/reasons identified.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

**Title:** Culturally-Appropriate End-of-life-Care Considerations for Physicians and Other Formal Care Providers

**Author(s):** Donna Wilson, Jean Triscott, Brooklyn Grainger

**Introduction:** Each year now, around 33,000 deaths take place in Alberta. Most (80%) deaths occur after old age has been achieved, with these deaths often anticipated as they follow a decline in health. End-of-life care planning is therefore possible in many cases; planning which helps make a preferred place of death and other personal and family preferences more achievable. Culturally-relevant end-of-life activities and care practices have become a major consideration for end-of-life planning. Alberta is largely comprised of people who moved here from other countries, with nearly ¼ Canadian citizens now having been born in another country. In recent years, people are increasingly arriving from new African and Asian countries, where different traditions exist in relation to appropriate (and inappropriate) activities occurring before death, at the time of death, and in the immediate post-death period when the body needs to be attended to despite acute family grief. With less than half of all deaths taking place in hospitals now, physicians and other formal care providers need to take these cultural norms and expectations into consideration.

**Objective and Methods:** A multi-stage literature review was conducted to identify culturally-appropriate and also inappropriate end-of-life activities in the pre-death, time of death, and immediate post-death time periods for 10 relatively new, large, and growing immigrant groups; people who have arrived from the Philippines, India, China/Hong Kong, Pakistan, Vietnam, Mexico, Korea, Nigeria, Ethiopia and Lebanon. After the library database searches and google searches were concluded, the information gained for each of the 10 immigrant groups was confirmed or corrected by local, provincial, or federal cultural group leaders/members living in Canada. These leaders were asked to review the information that had been gained about their cultural group, and they appreciated being asked about this.

**Results:** Some similarities across the 10 groups were noted, and also major differences. It also became apparent that some dying people and their families hold to what was practiced in the home country before immigrating to Canada, even if those practices have since changed, while others have adopted Canadian practices. As such, there is no certainty about what dying people who immigrated to Canada and their families expect from physicians, other formal healthcare providers, and the healthcare system. These similarities and differences highlight the importance of routinely asking about cultural practices and taboos, and gaining insight on other culturally-based considerations which are of importance to the dying person and their family.

**Conclusions:** This scoping review was undertaken to gain information on culturally-appropriate end-of-life care for dying people and their families who are members of ten (new) immigrant groups to Alberta. Given the cultural diversity identified, it is important for physicians to not only be open to differences but also to learn about any family-specific end-of-life expectations or preferences. Meeting these preferences or attempting to meet them could be a major factor for making this a “good” death for all.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Frozen Shoulder: How Effective is Ultrasound Guided Hydrodilatation of the Glenohumeral Joint and Immediate Physical Therapy (SHIP) in Terms of Pain, Function and Shoulder Range of Motion Compared to Usual Care (SHUC) a Double Blinded Randomized Clinical Trial Pilot
- Author(s):** Terry De Freitas, Elizabeth Clarke, Isabel Hedayat, Constance Lebrun
- Background:** Frozen shoulder can be extremely disabling, however hydrodilatation can improve pts pain and Range of motion, this procedure is coupled with physical therapy sessions.
- Purpose:** To determine the effect of immediate physical therapy after a standardized hydrodilatation procedure.
- Setting:** Sports medicine consulting clinic.
- Participants:** Adults diagnosed with frozen shoulder.
- Outcome:** Improved shoulder range of motion return to activities of daily living.
- Measures:** pain, range of motion, quick dash scores, upper extremity function index.
- Results:** All participants baseline VAS mean was 5.7/10, SHIP= 4.62, SHUC=6.77; post procedure SHIP= 2.64, SHUC 5.01, (p 0.04) at 30 days SHIP 3.83/10, SHUC 1.78. Baseline UEFI: SHIP 45.1/80 SHUC 38.SHIP 69.2/80 SHUC 62.1/80, where a positive MICD= 9 points. Quick DASH baseline all= 52.9, at 30 days 21.9 (improvement of 31) MICD= decrease of 15.91. Shoulder ROM Forward Elevation baseline SHIP 108.2 SHUC 93.0, at 7 days SHIP=122.5, SHUC=127.7 statistically significant for the SHUC group (p=0.02).
- Conclusions:** Both groups had improvements in pain and function, however, a larger sample size is needed.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

**Title:** An Introduction to Planetary Health - Incorporating Planetary Health and Sustainability in Post-Graduate Medical Training

**Author(s):** Andr ea Brabant, David Pontin, Martin Tieu

**Abstract:** Our global environment is changing. Human activity has caused a distinct geological change, disrupting our planet's stability and increasing human health burden. More than ever, we are facing the impacts of this new geological era, the Anthropocene, on the health of our communities through direct and indirect pathways. This is especially palpable in the circumpolar region, which is warming at 3X the global rate. Understanding these interconnections and identifying solutions to the complex challenges confronting our world can be achieved using the emerging field of planetary health.

Embedding planetary health education into postgraduate medical curriculum is an essential step towards achieving transformative change, considering the unique role and responsibility of medical education institutions in shaping our futures. It will equip and empower learners to take transdisciplinary and mutually reinforcing actions towards protecting and restoring planetary health, achieving the Sustainable Development Goals and aligning with the New or Modified Competencies in Planetary Health in CanMEDS 2025.

Led by physicians, the University of Alberta's Department of Family Medicine created a two-week postgraduate elective designed to introduce its learners to planetary health. Based on the Climate Change Toolkit for Health Professionals, the elective aims to have its participants investigate the anthropocene and the fragile interconnectedness of human and environmental health. Participants will examine the immediate, short-term and long-term consequences of our changing natural world and how these impacts are inequitably experienced by certain patient populations. They will examine the health benefits of spending time in nature and taking action on climate change. Furthermore, they will position climate change as a public health crisis, critically assess their role as physicians in climate action and synthesize how to incorporate planetary health in their patient care. Taking place in May 2024, this pilot project aims to highlight the importance of planetary health in medical education.



## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** From Kitchen to Clinic: Implementing a Novel Preclerkship Culinary Medicine Elective at UAlberta
- Author(s):** Lauren Wong, Ashraf Aborawi, Oksana Babenko, Olga Szafran, Chris Koo
- Background:** A novel culinary medicine elective was developed for preclerkship medical students at UAlberta to equip future physicians with competencies to better address nutrition as medicine for preventing and managing chronic diseases. Simultaneously, participants were empowered to adopt healthy eating habits to promote personal wellness.
- Purpose:** The purpose of this study is to examine the feasibility and acceptability of the culinary medicine elective and explore preclerkship students' perspectives and habits surrounding nutrition.
- Design:** Survey study design. Ethics Pro00133585.  
Group 1: Preclerkship students enrolled in the elective were surveyed at the start and end of the elective, with feedback requested after each session.  
Group 2: All preclerkship students not in the elective were surveyed to determine baseline attitudes towards culinary medicine.  
Group 3: All presenters were surveyed after teaching on their experience and feedback for future iterations.
- Setting:** UAlberta MD program.
- Participants:** 24 elective participants; 320 preclerkship students; 6 elective presenters.
- Outcome Measures:** Student perspectives on culinary medicine and personal nutrition habits were assessed through rating and Likert scale questions. Feedback from participants after each session was collected to determine acceptability of the elective. Presenter feedback about preparation and delivery of sessions, as well as cost analysis, served as feasibility measurements. Indirect and direct costs were tracked throughout elective setup and delivery.
- Results:** Overall, the novel elective has received positive feedback. There was strong attendance for each session (62-96%), despite only 4/6 modules being mandatory for credit. Content was appropriate for students' stage of training and relevant personally and clinically. Students enjoyed the variability in recipes that exposed them to new healthy ways of cooking and eating. The social aspect was a highlight of kitchen sessions, where participants collaborated and learned from one another while cooking.
- Conclusions:** The implementation of a complete culinary medicine elective at UAlberta supports the feasibility of a student-led initiative to promote nutritional education

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Supporting Indigenous Health and Wellness: Adapting the Change Health Community Program
- Author(s):** Amanda Radil, Loretta Tuttau, Charice Chan, Doug Klein
- Context:** Indigenous peoples are the fastest growing population in Canada and grew by 42.5% between 2006 and 2016; the average age of Indigenous Canadians is 32.1 years, much younger than the general Canadian population, with and one-third aged 14 years or younger. Unfortunately, despite efforts to narrow health disparities, Indigenous Canadians experience poverty, crowded living arrangements, decreased education and poorer health at significantly higher rates than non-Indigenous Canadians. We believe that co-designing programs with Indigenous communities to wrap services around Indigenous Youth and Young Adults can help to address these health inequalities and inequities.
- Objective:** This work explores how to work together with Indigenous communities to adapt an existing western based health promotion program (the Change Health Community Program) to address health inequities and wrap services around Indigenous Youth and Young Adults (IYYA).
- Design:** Descriptive case study.
- Participants:** Three Indigenous communities in Alberta; the CHCP team.
- Evaluation:** We explore the developmental process of adapting and building an Indigenous adaptation of the CHCP that is unique to each Indigenous community, that centers that community's wisdom and teachings (including ceremony), and that integrates and centers Elders' teachings.
- Results:** Three unique adaptations of the CHCP will be described. In two adaptations, the seven sacred teachings guide the adaptation, while nation specific teachings guide the third. Common across all three adaptations is the importance of Circle, Feast, Land-based learnings, and Elder Teachings. Team learnings will be shared about working with Indigenous partners in a good way, guided by *wâhkôhtowin*.
- Conclusions:** Indigenous communities have rich wisdom traditions and health practices that can be centered in co-designed programs that promote healthy behaviours, that address health inequity, that integrate Indigenous wisdom and teachings, and that acknowledge and support the assets that Indigenous communities have.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Clinic-Based Longitudinal Care in Alberta: A Current Census
- Author(s):** Samantha Horvey, Lauren Eastman, Xinran Zhang, Amanda Coyle, Makayla Watt  
Ryan Fyith-McArthur, Mitchell Chorney, Martin Tieu, Tina Korownyk
- Background:** Alberta has a deficit of Family Physicians providing clinic-based longitudinal care, however the exact degree of that deficit is unknown. In the last year, primary care reform has been at the forefront of public interest and political agendas. Understanding the current landscape of primary care is essential to make effective health policy recommendations and evaluate the efficacy of changes. The objective of this study was to determine key metrics on the delivery of clinic-based longitudinal care in the Edmonton area.
- Purpose:** Clinic-reported data on the number of family physicians and clinic time committed to the delivery of longitudinal care. Data illustrating the operational timeline of the clinic and anticipated expansion/contraction of services were reported.
- Methods:** Survey administered by phone or in-person to Family Medicine clinics. Secondary data analysis using publicly available College of Physicians of Alberta information. Approved by REB Pro00130555.
- Results:** Of the 340 clinics contacted, surveys were completed by 188 (55%) clinics, which represented 670 family physicians who provide longitudinal care. Of those 670 physicians, 40% graduated from medical school in Alberta and 51% graduated from an international medical school. 78 % of physicians providing longitudinal care graduated earlier than 2010. Physicians delivering longitudinal care are working an average of 7.7 half days per week. Greater than 40% of clinics were more than 10 years old and more than 40% of clinics were recruiting physicians. Most clinics anticipated no changes to size and panelling of patients.
- Conclusions:** This study utilized a survey-based approach and provides a snapshot of the current family medicine landscape in the Edmonton area. It reveals an in-demand, yet stagnant industry in need of recruitment and retention of more family physicians providing longitudinal clinic-based care.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

**Title:** Decreasing Administrative Burden in Family Physicians Through the Implementation of an Ambient AI Scribe

**Author(s):** Amira Aissiou, Firdaus Mydeen

**Background:** Family physicians often face significant administrative burden due to charting responsibilities, which contributes to burnout and decreases work satisfaction.

**Purpose:** The purpose of this quality improvement project was to reduce the administrative burden of Pembina Medical Clinic Family Physicians by integrating Scribeberry, an ambient AI scribe, into the clinical workflow.

**Methods:** The setting for this project was the Pembina Medical Clinic, involving four practicing family physicians. Four physicians from the Pembina Medical Clinic participated in the project.

**Results:** After implementing the AI scribe, 75% of physicians reported a low administrative burden compared to 50% reporting high before the intervention. In terms of burnout, the percentage of physicians who frequently felt emotionally exhausted or burnt out from their work reduced to 25% post-intervention from 75% pre-intervention.

**Conclusions:** The integration of Scribeberry into the clinical workflow significantly reduced the administrative burden and feelings of burnout among the physicians at Pembina Medical Clinic. The primary barriers to adoption were the initial incorporation of technology into the daily workflow and logistical issues, such as the absence of microphones on computers. Despite some challenges, including occasional missing details and technical glitches, the feedback was positive, indicating a practice-changing impact for participating physicians.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Uses of Personalized Physician Feedback Reports to Assist in Quality Improvement, Research and Inform Practice: The Northern Alberta Primary Care Research Network (NAPCRen)
- Author(s):** Heidi Cheung, Kimberley Duerksen, Brian Forst, Denise Campbell-Scherer, Donna Manca
- Background:** NAPCRen is a Practice-Based Research and Learning Network (PBRLN) hosted by the Department of Family Medicine at the University of Alberta. It is a multidisciplinary collaboration of researchers and clinicians in primary care working together to improve practice by evaluating patient panels. NAPCRen contributes nationally to the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) and extracts and structures data on 49274 primary care patients in northern Alberta.
- Purpose:** NAPCRen has provided participating sentinels longitudinal point-of-care reports for the last three years which contain de-identified patient data. The PBLRN uses patient values which is more accurate than administrative data based on billing codes
- Design:** Secondary data analysis
- Setting or Data Set:** Point-of-care physician data from clinic EMRs in Edmonton, Alberta, Canada.
- Participants:** Yearly reports include data on asthma patients and prescribing asthma medications, diabetes and chronic kidney disease, COPD and smoking history, hypertension and blood pressure measurements, polypharmacy in older patients and the Edmonton Obesity Staging System.
- Outcome:** The reports facilitate quality improvement and professional development, patient panel clean-up, disease registries and informing practice. They allow the physician to compare their panel with others in the same clinic and to the entire network.
- Results:** Research in progress.
- Conclusions:** NAPCRen plays a crucial role in advancing primary care research and helps practices identify areas for improvement in care delivery processes. This may lead to better patient outcomes and more efficient healthcare delivery.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Resident-Driven Agenda Setting to Prioritize Visit Concern for Primary Care Visits at the Grey Nuns Family Medicine Clinic (GNFMC) in Efforts to Reduce Clinic Running Behind and Nursing Overtime Use
- Author(s):** Syed Hussain, Banafsheh Manafian, Sandra Andrawais
- Background:** Clinics with residents at the Grey Nuns Family Medicine Clinic (GNFMC) frequently run behind schedule leading to longer wait times for patients and requiring overtime pay for staff. Multiple reasons exist for clinics running behind, including patients presenting with multiple concerns for the visit.
- Purpose:** To agenda set, prioritize and limit discussion to 2 visit concerns for patients presenting with 3 or more visit concerns.
- Design:** Prospective design attempting agenda setting using a standardized statement for patients seen in clinic over a 2 weeks period.
- Setting:** GNFMC
- Participants:** Patients seen in clinic over a 2 week period
- Outcome Measures:** Success rate with agenda setting (if able to limit patient concerns to 2 items)
- Results:** ~32% or 13/40 patients had 3 or more concerns. Of the 13 patients, we were able to agenda-set with 5 patients or 38%.
- Conclusions:** We were able to successfully agenda set with ~38% of the patients who presented with 3 or more concerns during our study period. Challenges included managing patient expectations, prioritizing issues and time taken for agenda setting. Next steps include determining if agenda setting actually translates to decreased clinic visit time and if so, by how much.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** OECD Patient-Reported Indicators Survey (PaRIS) in Canada: Results From the National Study
- Author(s):** Marie-Eve Poitras, Walter Wodchis, Vivian R. Ramsden, Nazeem Muhajarine, Gayle Halas, Andrea Gruneir, Shelley Doucet, Kris Aubrey-Bassler, Vijay Kunaratnam, Vanessa T. Vaillancourt, Udoka Okpalauwaeke, Charlotte Schwarz, Shelby Elkes, Leanne Kosowan, Fazle Sharior, Gillian Bartlett, Charlotte Jensen
- Background:** The PaRIS-Survey, developed by the Organization for Economic Co-operation and Development (OECD) countries, provides international standards for reporting on health system performance. While collecting patient-reported experiences and outcomes is increasingly integrated into acute care, the PaRIS-Survey is the first primary care practice-based survey across multiple OECD countries.
- Purpose:** The purpose of this work was to compare Canadian-equivalent health outcomes and experiences of patients with chronic conditions in primary care and identify improvement opportunities. This work centers only on the national findings.
- Methods:** Canadian primary care practices across 10 provinces. Participating family physicians and nurse practitioners recruited patients aged 45 or older with chronic condition and at least one registered contact in the six months leading up to the study.
- Results:** Across 7 provinces, 65 practices and 4630 patients participated. 7 out of 10 patients reported they were not as involved as they wanted to be in decisions about their care; 69% reported they were not considered as a “whole person” but just their diagnosis/condition. About 14% of patient reported Poor or Fair mental health with an increase to 18% regarding physical health. One-third reported that pain interferes with their day-to-day activities.
- Conclusions:** The PaRIS survey provides the only standardized primary care practice and patient-reported experience and outcome measures administered across Canada. These measures enable patients’ voices on their experiences of primary care. Results will allow for countries to learn from each other’s approaches and systems to improve primary care services for people with chronic conditions.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** A Scoping Review of Teaching Methods for and Assessment of Physical Examination of the Ear, Nose, Throat, and Neck
- Author(s):** Peter Tian, Sara Alvarado, Caitlin Finley, Andrew Cave, Timothy Cooper, Graeme Mulholland, Janice Kung
- Context:** Knowledge and skills on ear-nose-throat (ENT) conditions have been reported to be inadequate in undergraduate and postgraduate medical education. Moreover, with the pandemic, the shift to teleconsultations and virtual education, both knowledge and hands-on skills in various residency programs decreased. To address a gap in skills on physical examination of the ENT and neck, we developed a workshop for family medicine residents.
- Objective.:** This scoping review will summarize the teaching methods for and assessment of physical examination of the ear, nose, throat, and neck.
- Methods:** A librarian searched four databases: MEDLINE, CINAHL, Embase, and ERIC. Also, the librarian did a search in Google Scholar and provided the first 200 results. The search results were reviewed by two independent reviewers. Screening was done in two phases: a title-abstract screen followed by a full-text screen. Publications in English which describe teaching methods and/or assessment of physical examination techniques of the ENT and neck in medical education were included. Data extraction was done by one reviewer and reviewed by another reviewer.
- Results.** 1002 records were identified. After screening, 22 primary studies were included in the analysis. The publication years ranged from 1995-2021 with 16 (73%) in 2015-2021. 18 (82%) publications were from the USA and Canada. 17 (77%) of publications were on undergraduate medical education and 5 were on postgraduate education. The studies were most common on ear examination (n=16) and had varied designs, from a single group post-test only design to a randomized clinical trial.
- The teaching sessions ranged from 30-minute sessions to a 2-day workshop. Teaching methods used included the following: lectures or didactics, use of technology, feedback from facilitators or peer, practice by the participants, videos, demonstrations by instructors, and handouts. Technology consisted of one or more of the following: otoscopy simulator, mannequins, web-based modules, digital otoscopes, animation and videos, endoscopes and audiometers, robotics and gamification.
- The assessment methods consisted of tests for correct diagnoses or for diagnostic errors, multiple choice questions or short-answer questions, direct observation with real patients, or an objective structured clinical examination. Self-assessment (Likert or Likert-type scale) of confidence, comfort level, helpfulness, and effectiveness were also common.
- Conclusions:** Physical examination of the ENT-Neck has been taught and evaluated using different modalities. Examination of the ear is the most commonly published.



## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Comprehensive Osteoarthritis Management Education and Treatment (COMET) Virtual Session: Evaluation of Patient Satisfaction and Self-management of Osteoarthritis (OA)
- Author(s):** Roshani Puri, Terry De Freitas, Marni Wesner, Boris Boyko, Kristin Anstey, Olesia Markevych, Constance Lebrun
- Background:** The University clinic offers a physician-led seminar “Comprehensive OA Management Education and Treatment” (COMET) delivered via Zoom intended to educate and empower patients with osteoarthritis.
- Purpose:** To evaluate the efficacy of the COMET in improving patients' self-rated knowledge of OA, OA symptoms, and self-efficacy in managing OA.
- Design:** Prospective program evaluation.
- Participants:** 30-85 years, diagnosed with hip and/or knee OA. Knee OA n=32, Hip OA n=16 & Knee and Hip OA n=4.
- Outcome:** To compare patients' baseline and one month post seminar scores on all sections from HOOS, KOOS, and ASE. To compare participants' OA knowledge before and after the seminar.
- Measures:** HOOS, KOOS and Arthritis self-efficacy (ASE). COMET satisfaction survey will be used to assess knowledge gained regarding OA.
- Results:** KOOS: “Quality of Life” section (baseline  $38.09 \pm 16.83$  vs 3 month  $44.73 \pm 19.06$ , p value = 0.0200).  
HOOS: “Sports and Recreation” section (baseline  $27.34 \pm 24.35$  vs 3 month  $42.19 \pm 32.80$ , p value = 0.0034). “Pain” section (baseline  $46.09 \pm 22.82$  vs 3 month  $54.69 \pm 28.87$ , p value = 0.0048).  
ASE: “Pain” section (baseline  $5.36 \pm 2.57$  vs 3 month  $6.54 \pm 2.16$ , p value = 0.0013).  
At baseline, majority responses (60%) indicated 'a little' or 'some' knowledge related to different aspects of OA and post seminar, majority responses (86%) indicated 'adequate' or 'significant' knowledge.
- Conclusions:** COMET increased patients' knowledge regarding OA. Patients' knee-related quality of life in KOOS and hip-related sports and recreation function in HOOS also improved. There was improvement in patients' self-efficacy for managing pain and other symptoms such as fatigue in ASE.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

**Title:** Development and Delivery of a Workshop on Physical Examination of the Ear, Nose, Throat, and Neck

**Author(s):** Peter Tian, Caitlin Finley, Andrew Cave, Timothy Cooper, Graeme Mulholland

**Context:** Training in the basics of ear, nose, throat (ENT) is limited in undergraduate medical education and in family medicine residency.

**Background/  
Objective:** We developed and delivered a workshop on physical examination of the ENT and neck to family medicine residents and undergraduate medical students.

**Methods:** Design: This study was an action research consisting of cycles of (1) needs assessment, (2) workshop.

**Participants:** Family medicine residents and undergraduate medical students.

**Outcome  
measures:** Ratings from items in the need assessment and evaluation.

**Analysis:** We used descriptive statistics for the quantitative questions and narrative summaries of open-field questions.

**Results:** Three workshops were delivered to family medicine residents (n=24); two workshops were delivered to medical students (n=40) between 2022 and 2023. There was a discrepancy between the number of registrants and the number of actual attendees between the residents and medical students. For residents, 47% (24/51) of registrants attended the workshop; for medical students, 95% (41/42) of registrants attended.

For the pre-workshop needs assessment, 70% or more of the registrants agreed or strongly agreed that they needed to practice physical examination techniques. In the post-workshop evaluation, 75% of the residents and medical students answered the evaluation and all of them rated the workshop as relevant.

**Conclusions:** A workshop on physical examination of the ENT-Neck is a unique learning opportunity for family medicine residents and medical students because of the minimal training in ENT knowledge/skills. The workshop can be delivered as a stand-alone workshop with continuous improvements using an action research methodology.

## 21<sup>st</sup> Annual Family Medicine Research Day

June 7, 2024

### ABSTRACT

- Title:** Exploring Iron Deficiency in Alberta: Following up on Clinical Observations
- Author(s):** Suzie Lee, Cliff Lindeman, Amanda Radil, Doug Klein
- Context:** Iron deficiency (ID) is a common and preventable micronutrient deficiency, affecting cognitive development, immune function, and well-being of individuals, and leading to substantial health care costs.
- Objective:** Our study investigates ID prevalence in Alberta from 2010 to 2022. We hypothesize that the prevalence of ID in Alberta has been increasing over the past decade based on clinical observations and anecdotes. We also explore anemia prevalence to see if results converge between these closely related conditions.
- Design:** Retrospective analysis of electronic medical data obtained from the Canadian Primary Care Research Network, Southern Primary Care Research Network (SAPCRen-CPCSSN).
- Participants:** Cohort of 94,264 individuals aged six and older residing in Alberta, with at least one ferritin test between 2010-2022. ID was defined in accordance with the World Health Organization (WHO) guidelines (i.e., serum ferritin below 15 µg/mL).
- Instrument:** Secondary data were extracted from de-identified SAPCRen-CPCSSN electronic medical records.
- Outcome/  
Evaluation:** We examined the prevalence of ID over the study period, focusing on trends and correlations to patient and provider demographics. We examined the prevalence of anemia over the same time period.
- Results:** Contrary to our hypothesis, our findings demonstrated a trend of decreasing ID in Alberta particularly during the pandemic years (i.e., 2020-2022). Within this overall decline, ID remained higher among women of reproductive age and individuals with higher material deprivation. Our analysis uncovered a paradoxical trend: while ID is decreasing, anemia is trending upward, underscoring the need to better understand ID and its implications.
- Conclusions:** The decreasing trend in ID prevalence is encouraging; however, ID remains high among vulnerable populations, which highlights the importance of targeted interventions to address ID effectively. Further investigation is needed to better understand the underlying factors that contribute to our paradoxical finding, which also underscores the importance of assessing multiple clinical indicators to understand patients' experiences.