



32nd ANNUAL
Rural and Remote
Medicine Conference

APRIL 24-26, 2025
WINNIPEG, MANITOBA
RBC CONVENTION CENTRE



2025 RESEARCH ABSTRACTS

ruralandremoteconference.ca

SUPPORTING EXCELLENCE IN RURAL HEALTHCARE



The SRPC Rural Research Committee is dedicated to advancing high-quality research in rural healthcare, focusing on promoting innovation, collaboration, and the dissemination of impactful studies.

Research Presentations at the Rural and Remote Medicine Course

The SRPC oral research sessions provide a platform for researchers, clinicians, and academics to share their work, fostering collaboration and knowledge exchange to benefit rural communities.

Your Research, Our Priority

We accepted two types of research abstract submissions—Oral and Poster Presentations—covering various aspects of healthcare in rural and remote settings. All submissions underwent rigorous peer review to ensure the quality and relevance of the research presented.

The oral sessions cover a range of key topics, including emergency care, chronic disease management, medical education, AI in healthcare, and physician recruitment. Presentations will address strategies to improve patient outcomes and healthcare delivery in underserved regions, with contributions from Canada, New Zealand, and beyond.

Research Poster Presentation

Join us for the Research Poster Presentation on Friday, April 25, from 12:30 PM to 1:30 PM, where delegates can engage with researchers and discuss a range of projects. Posters will be on display throughout the conference, and a \$500 prize will be awarded for the top student and resident research poster based on Rural Relevance, Research Methodology, Impact, Clarity, and Originality.

Volunteer Commitment: Key to Success

We sincerely thank our volunteer reviewers for their dedicated support. Each submission was carefully reviewed by at least three experienced volunteers, ensuring the success of the committee's work.

Special Thanks to Rural Research Committee Reviewers

Peter George Tian, Leah Kogan, Steph Welton, Jessica Kainth, Eli Orrantia, Raoun Khan, Margo Wilson.

Disclaimer

The submitted abstracts and the deadlines associated with publication do not permit author communication, abstract revisions, or editorial review. The abstracts are presented as they were submitted to the Research Committee. Only the author affiliation provided by the presenting author is specified.

We hope you enjoy the excellent research submissions at this year's conference.



Dr. Margo Wilson
Society of Rural Physicians of Canada
Chair of the Rural Research Committee

ABSTRACTS

ABSTRACTS FROM THE 32ND ANNUAL RURAL AND REMOTE MEDICINE CONFERENCE APRIL 24–26, 2025; WINNIPEG, MANITOBA

POSTER PRESENTATIONS

Explore the world of research during the designated Research Poster Presentation on Friday, April 25, from 12:30 PM to 1:30 PM. This unique opportunity allows delegates to engage with researchers, ask questions, and share insights on various projects. Posters will be on display throughout the entire conference, spanning all three days. A \$500 prize will be awarded to the top-scoring student and resident research poster. Each poster will be judged on Rural Relevance, Research Methodology, Impact (on healthcare, patients, etc.), Clarity of Presentation, and Originality.

These research poster presentations offer an insightful journey through the diverse and dynamic landscape of healthcare in rural and remote communities across Canada. Topics range from frostbite care and mental health approaches to the impact of COVID-19 on medical office assistants and the recruitment of rural family physicians. Engage with unique medical cases and explore disparities in healthcare access and quality. These presentations aim to foster meaningful discussions, share valuable insights, and contribute to the advancement of rural healthcare. Join to connect with passionate healthcare professionals dedicated to making a difference in rural communities.

SRPC Research Reference Numbers Guide: 100s: Student Posters (eligible for contests) 200s: Resident Posters (eligible for contests)
300s: Non-qualifying Posters (may not be members, students, or residents) 400s: Oral Presentations

ACCESSIBLE CATARACT SURGERY: METHODOLOGY TO DETERMINE PATIENT ACCESS TO CATARACT SURGERY AND ITS IMPACTS ON COST AND CARBON EMISSIONS IN RURAL SOUTHERN ALBERTA SRPC Research Ref: Poster - 101

Zorana Lynton, Dr. Abdullah Al-Ani MD, PhD, Dr. Brooklyn Rawlyk MD, Dr. Michael Kryshchalskyj MD, Dr. Nathan Carrell MD, FRCSC, Dr. Peter Huang MD, FRCSC, Dr. Paul Huang MD, FRCSC

Background: Cataract surgery is the most commonly performed surgical procedure in Canada, with demand projected to increase by over 20% in the next decade due to the aging population [1]. Notably, rural populations are aging faster than urban populations [2]. Given these trends, it is crucial to identify the accessibility of cataract surgery in rural populations now to facilitate effective resource planning in the coming years.

Despite being a relatively simple procedure with significant potential to restore vision, rural Canadians face notable barriers to accessing cataract surgery. These include distance, time, and costs associated with

travel, all of which also contribute to the economic and environmental burden of healthcare. While the challenges are well-recognized, the extent of geographic disparities in cataract surgery access across Canada remains underexplored. In Alberta, many rural communities are dispersed across vast geographical areas. The province has achieved some success in delivering cataract surgery services to central rural populations through outreach programs. For example, ophthalmologists travel from Red Deer to Innisfail, a town with fewer than 10,000 residents, to provide cataract surgeries [3]. However, Alberta's rural healthcare system has faced challenges in recent years, prompting the development of the Alberta Rural Health Action Plan (2024-2027), which aims to improve access to care. Building on Alberta's demonstrated ability to deliver specialized services in rural areas and recent efforts to improve accessibility, we propose an experimental plan to systematically evaluate cataract surgery accessibility in southern Alberta to inform future resource planning. The information collected will align closely with The Canadian Institute for Health Information's Rural Health Systems Model, gathering both quantitative and qualitative data on key contextual factors that influence health needs and system use in rural areas. This will include data on travel time, costs, and availability, as well as corresponding

demographic and socio-economic data from publicly available sources. We will also analyze how these factors correlate with infrastructure, resources, and service delivery models available to help plan for the increased demand for cataract surgery in southern Alberta.

Methodology: The location (city/town and postal code), mode of transportation, and number of visits of patients who receive phacoemulsification cataract surgery at the Holy Cross Surgical Center in Calgary and the Chinook Regional Hospital in Lethbridge over six months will be recorded and compared to the population size and demographics in these areas. For example, we will compare patterns of service utilization from individual communities with their estimated senior-aged population. Subsequent analysis to further understand disparities in accessibility will be conducted via an iterative exploratory process using publicly available information, including mapping other eyecare specialists providing cataract surgery (collected via Alberta College of Optometrists, the College of Physicians and Surgeons Alberta, and Google Map search), analyzing differential locations of no-show patients, and analyzing sociodemographic data (2021 Statistics Canada census data). This in-depth analysis of patient transportation forms part of an existing project designed to calculate efficiency, via CO₂ emissions, associated with cataract surgery using the Eyefficiency tool [4]. This tool employs well-established carbon footprinting methods to estimate emissions from patient travel, among other sources, to quantify time, resource, and environmental inefficiencies associated with cataract surgical health care. Thus, in addition to defining areas of limited access, we will also quantitatively define the cost and CO₂ emissions associated with geographically limited access to services. This analysis will enable quantitative comparisons of different proposed outreach program designs.

Results: We anticipate identifying significant disparities in access to cataract surgery for residents of rural southern Alberta, with access diminishing with increasing distance from Calgary or Lethbridge, lower socioeconomic status, and fewer local eyecare specialists. Depending on the distribution and proximity of underserved areas to existing surgical facilities, we will propose and evaluate potential solutions, comparing their accessibility, associated costs, and environmental impact.

Conclusion: This study will provide critical insights into the accessibility of cataract surgery services, guiding future service planning initiatives. Potential solutions may include expanding outreach facilities, implementing patient transport programs, reimbursing travel costs, or regularly offering bilateral cataract surgery. These measures aim to improve accessibility while reducing transport-related costs and emissions. By addressing these challenges, this project will support socially, economically, and environmentally sustainable strategies to meet the growing demand for cataract surgery in rural southern Alberta.

ASSOCIATIONS BETWEEN OBJECTIVELY MEASURED NIGHTTIME SLEEP DURATION, SLEEP TIMING, AND SLEEP QUALITY AND BODY COMPOSITION IN TODDLERS IN THE GUELPH FAMILY HEALTH STUDY

SRPC Research Ref: Poster - 102

Sarah Ribey, Hannah J. Coyle-Asbil, Katarina Osojnicki, Bridget Coyle-Asbil, Lori Ann Vallis, Gerarda Darlington, Alison M. Duncan, David W.L. Ma, Jess Haines, Andrea C. Buchholz and on behalf of the Guelph Family Health Study

Background: The prevalence of child obesity is a worldwide public health concern. Good sleep quality is associated with reduced adiposity in older children and adults. More research is needed in younger children to help mitigate risk of obesity. We aimed to address limitations found in previous studies such as relying on subjective measures, or only including one parameter of sleep, using only one body composition parameter, and/or not adjusting for relevant covariates.

Methodology: Nighttime sleep duration (total sleep time; TST), sleep timing (sleep onset and offset time), and sleep quality (wake after sleep onset; WASO) were measured using 24-hour accelerometry for seven consecutive days. Height, body weight, and waist circumference were measured, and BMI z-scores and waist-to-height ratios were calculated. Percent fat mass and fat mass index were calculated using bioelectrical impedance analysis. Linear regression models were used to estimate associations between sleep parameters and body composition outcomes, with adjustments for relevant covariates (age, sex, household income, screen time, energy intake, physical activity, household stress).

Results: Nighttime sleep onset time was positively associated with waist-to-height ratio ($\beta=0.004$, $p=0.04$). Sleep offset time was negatively associated with BMI z-score ($\beta=-0.48$, $p=0.02$). TST and WASO were not associated with any body composition outcome.

Conclusion: In this study, sleep onset time was positively associated with waist-to-height ratio and sleep offset time was negatively associated with BMI z-score. Since evidence of toddlers in this field is still scarce, longitudinal research in a larger sample size is needed to confirm our findings.

BARRIERS AND FACILITATORS TO CLINICAL TRIAL DELIVERY IN RURAL SETTINGS: A RAPID REVIEW

SRPC Research Ref: Poster - 103

Quinn Stewart, BSc, Dr. Denise Jaworsky, MD PhD, Brandi Vanderspauk-Wright, RN PhD, Deveshi Deveshi

Background: As of 2021, 6.6 million Canadians, or approximately 18% of the population, live in rural communities. Unfortunately, rural residents experience significant health disparities when compared to their urban counterparts. According to Statistics Canada, communities of less than 1000 with a population density of fewer than 400 per square kilometre are classified as rural. These Canadians have higher rates of avoidable mortality, were less likely to receive routine care, have a family physician, and access certain health care services.

Rural populations have also been historically underrepresented in health research, including clinical trials. However, access to clinical trials has the potential to benefit patients by providing access to novel and potentially life-saving treatments. Rural representation in clinical trials is also particularly important because it increases the diversity of the patient population and thus, the generalizability of data obtained from trials. Additionally, patients who participate in clinical trials and/or are simply cared for at sites involved in clinical research experience better health outcomes. Overall, these facts raise concerns about rural health equity and highlight the need for a better understanding of the factors influencing rural clinical research.

Methodology: Following the methods established by the Cochrane Rapid Review Methods Group, this rapid review evaluated the literature on clinical trial delivery in rural sites. A search query was developed with input from stakeholders and with the help of a librarian, a literature search of three databases (MEDLINE, CINAHL, Cochrane Central) was conducted. Two reviewers screened the abstracts of the returned studies based on established eligibility criteria, and a third reviewer resolved any conflicts. Included papers were published in the previous 5 years in high income countries and specifically described barriers and/or facilitators to clinical trial delivery in a rural setting. They were also required to be peer-reviewed, empirical research published in the English language. Opinion papers, theses, grey literature and papers that were limited to urban settings were excluded. Following abstract screening, one reviewer reviewed the full text of each selected study for final inclusion in the review. Data extraction was then performed on included studies using a piloted form developed by the research team. A minimal set of data items, such as author, year, study design and setting, barriers/facilitators and definition of rurality, was used. The final step was a narrative synthesis of results and summary of discovered barriers and facilitators to rural clinical research.

Results: Rural communities are inherently challenging locations for clinical research because they are generally smaller, more remote and more dispersed than their urban counterparts, causing issues of access and increased time commitment. Lower literacy, as well as resource and experience limitations also exacerbate the issue. Overall, rural sites seem to present with more heterogeneity and unique features that are less likely to be addressed by clinical trial protocols.

Community engagement, including distribution of educational materials, collaboration with local organizations and following principles of co-research, is a proven approach to rural research that facilitates meeting the unique needs of rural communities. In addition, the use of technology and an emphasis on training, mentoring and professional development have been shown to be effective facilitators in the rural context.

Conclusion: While there appears to be a consensus in the literature regarding common barriers and facilitators to rural CTs, the unique nature of rural sites makes a standardized approach to rural research difficult and emphasizes the importance of a tailored, community-focused approach. Where the research does often disagree is on a common definition of rurality, which complicates a true understanding of the issue. Future research is also needed on the role of family and

close friends in the decision to participate in CTs, as this has been suggested as a significant factor.

CHOOSING RURAL MEDICINE LEARNING EXPERIENCES: THE STUDENTS' PERSPECTIVE

SRPC Research Ref: Poster - 104

Alicia Schulz, Kristian Chow, Cara R. Pilgrim, Kamal Lakhri, Bradley MacCosham, Warren J. Cheung, Marianne Yeung

Background: In light of Canada's physician shortage in rural and remote communities, it is important to understand which steps medical schools take to facilitate participation in rural learning experiences and eventual careers in rural medicine.

Methodology: An online survey was distributed to current University of Ottawa medical students, years one to four, via weekly email newsletter. Survey questions were developed based on review of current literature on factors influencing engagement in rural learning experiences. Questions were grouped under: demographics, personal factors, factors affecting well-being, logistics, and learning opportunities and career planning. A mixed quantitative and qualitative approach was used to collect and analyze data.

Results: 127 students responded to the survey (18% response rate) of which 37% were first year and 32% second year. Of respondents, 36% expressed interest in practicing in a rural setting. 27% identified as having a rural background. 71% wanted more rural learning experiences, 55% wanted more information on opportunities. Key factors encouraging engagement in rural experiences included: hands-on learning opportunities (73%), going with a classmate (69%), a desire to explore rural locations (69%), having connections to a specific rural community (44%) and talks about rural medicine (43%). From qualitative responses, positive experiences with rural healthcare teams and with the rural community at large were most commonly reported as factors that encouraged engagement. Barriers included: being away from family/partner (20%), logistics of arranging the rotation (19%), transportation (19%), and cost (19%).

Conclusion: This study identified barriers and facilitators to rural learning experienced by medical students at our university. By addressing these, we can promote student engagement in rural learning and consideration of careers in rural medicine.

EMERGENCY OTOLARYNGOLOGY FOR RURAL HEALTHCARE PROVIDERS: DEVELOPING A [REDACTED] CADAVERIC TRAINING COURSE FOR ENT IN THE ED
SRPC Research Ref: Poster - 105

Melissa Yeo, MCISc, MD(c), Dr. Aliphasha Rassouli MD FRCSC FACS, Dr. Sunil Mehta MD CCFP(EM) FCRP, Dr. Rebecca Brookham PhD RKin

Background: Otolaryngologic emergencies, such as epistaxis, mastoiditis, and facial trauma, are common presentations in the Emergency Department. With incidence of these emergencies increasing, physicians working in rural settings must be prepared to manage ENT presentations, often with limited resources. To address this, a hands-on cadaveric training course for rural emergency physicians entitled, Emergency Otolaryngology for Rural Healthcare Providers, was developed and evaluated.

Methodology: A literature review was conducted to produce a 12-Module training course for rural physicians. Collaboration with a local Human Anatomy Program resulted in cadaveric dissections that were utilized for hands-on surgical skills during a one-day training course, held for 16 rural emergency medicine physicians. Three questionnaires were distributed to course participants to evaluate the reaction, learning, behavioural intent and expected outcomes of the program immediately after course completion, and again 3 months post-course. The relevance of the cadaveric dissections for each of the 12 Modules and the utility of 3 different airway training modalities (Cadaver Models, Sim Manikins, and 3D printed models) for surgical training were also investigated.

Results: The post-course evaluation revealed an overall high satisfaction score (91.8%) across multiple dimensions, including Reaction (92.5%), Learning (90.3%), Behavioral Intent (95.6%), and Expected Outcomes (88.8%). Module-specific evaluations indicated that the Lateral Canthotomy, Cricothyrotomy/Tracheostomy/Jet Ventilation, and Peritonsillar Abscess modules were rated most relevant, while ENT Foreign Body, Lip Laceration, and Nasal Fracture modules were rated lowest. Among three airway emergency training modalities (Sim Manikin, 3D Printed Models, and Cadaver Models), cadaver models were rated highest for anatomical understanding, surgical technique, future practice impact, and overall value.

Conclusion: Overall, there was a high satisfaction among participants who completed the one-day course. Significant differences were found between training modalities, with cadaver models showing superior ratings particularly when compared with Sim Manikins. This study also found that participants were least familiar with cadaver models, highlighting a potential gap in prior exposure. Future courses with cadaveric models can be useful for training rural physicians in hands-on procedural and surgical skills.

ENHANCING EARLY SEPSIS RECOGNITION AND MANAGEMENT IN RURAL HOSPITALS
SRPC Research Ref: Poster - 106

Debra Hawkins, BSN, RN, DNP-Student, APRN-CNS Candidate
Dr. Kacy Aderhold, DNP, APRN-CNS

Background: This quality improvement (QI) project aimed to enhance early sepsis recognition and protocol adherence in rural hospital settings. The initiative addressed challenges such as limited resources and access to specialized training, which are common barriers to effective sepsis management in rural healthcare.

Methodology: The project was conducted within two critical access rural hospital locations. Guided by the Plan-Do-Study-Act (PDSA) framework, baseline data were collected in June 2024, revealing suboptimal compliance rates (Hospital A: 52.57%, Hospital B: 49.70%). Tailored educational programs were implemented, focusing on staff training in sepsis recognition and adherence to evidence-based guidelines. Post-intervention data were collected monthly using Meditech EMR and staff surveys to evaluate knowledge, confidence, and screening accuracy.

Results: Significant improvements were achieved in both hospitals. Hospital A's accuracy rates increased from a baseline of 52.57% in June to 79.58% in October and maintained with a 79.28% in November, reflecting a 26% improvement. Hospital B's rates improved from 49.70% in June to 77.77% in November, achieving a 28% increase. These results indicate consistent month-to-month improvement, attributed to enhanced training effectiveness, process optimization, and accountability mechanisms. Staff surveys also demonstrated increased confidence and knowledge in sepsis management post-intervention.

Conclusion: This project demonstrates the effectiveness of evidence-based QI initiatives in addressing critical care disparities in rural healthcare. By improving compliance with sepsis recognition protocols and staff competency, the project highlights the potential of structured interventions to enhance patient outcomes and foster sustainable improvements in resource-limited settings.

EVALUATING THE LONG-TERM IMPACT OF GROUP KETAMINE-ASSISTED THERAPY ON THE MENTAL HEALTH OF RURAL HEALTHCARE WORKERS AND FIRST RESPONDERS IN NORTHERN ONTARIO
SRPC Research Ref: Poster - 107

Meredith E. Charbonneau, Alexi I. Wowk, Mateo R. N. Orrantia, Iain R. Lamb, Kyle Greenway, Shannon Dames, Ryan J. Patchett-Marble

Background: Front-line workers, including public safety and healthcare personnel, face elevated rates of mental health challenges due to prolonged exposure to traumatic, violent, and emotionally-charged situations in their workplaces. In rural Northern Ontario, where access to mental health services is limited, there is a pressing need for innovative, accessible, and effective interventions to support these professionals. One promising solution is the Community of Practice Ketamine-Assisted Therapy (CoP-KaT) program, which integrates the therapeutic benefits of ketamine with the support of a community of practice. While CoP-KaT demonstrates potential in addressing immediate mental health concerns, there is a need to evaluate its long-term effectiveness and sustainability.

Methodology: Over the course of the six-week group therapy program, participants received 3 ketamine doses (1 sublingual, 2 intramuscular). Participants were offered additional KaT sessions with intramuscular ketamine if desired. Quantitative assessments of mental health including depression (PHQ-9), anxiety (GAD-7), PTSD (PCL-5), and burnout (MBI-HSS) were administered at intake, program completion, and six months post-program. The data were analyzed using repeated-measures one-way ANOVAs with post-hoc Bonferroni corrections. Additionally, semi-structured interviews conducted six months post-program were analyzed thematically to explore the program's impact on participant well-being.

Results: The mean number of ketamine dose sessions attended was 4.58 (CI: ± 0.7). At long-term follow-up, the mean time since participants' most recent KaT session was 4 months (CI: ± 1.2). There were statistically significant improvements in assessment scores from baseline to program completion, which were further improved at long-term follow-up. At intake, 11 participants screened positively for major depressive disorder (PHQ-9 > 10), 9 for anxiety (GAD-7 > 10), and 10 for PTSD (PCL-5 > 33). At long-term follow-up, these numbers decreased to 1, 2, and 2, respectively.

Qualitatively participants reported improvements in mental health, relationships, and self-awareness, with many attributing their progress to both ketamine and the group therapy component.

Conclusion: Our findings indicate group-based KaT significantly improved the long-term mental health outcomes in healthcare workers and first responders. The group delivery model is an efficient and resource-conscious approach to mental health care, which is valuable in rural and low-resource settings.

EXPLORING THE IMPACT OF RURAL EMERGENCY DEPARTMENT CLOSURES.
SRPC Research Ref: Poster - 108

Karen Lemon, Dr. Adam Szulewski, Dr. Heather Braund, Dr. Tim Chaplin

Background: Rural emergency department (ED) closures due to staffing shortages significantly impact rural communities. These closures often leave patients without immediate access to emergency medical care, with potential consequences on patient outcomes and increased strain on neighbouring hospitals. There have been few studies on the impacts of ED closures on patient experiences.

Methodology: This study employed a phenomenological approach to gather qualitative data from individuals in communities that had experienced ED closures. Communities for recruitment were selected by looking for media releases informing community members of a closure between March and August 2024. For selected communities a recruitment poster was shared in their community Facebook page. Interested participants engaged in virtual semi-structured interviews conducted using the Zoom platform. These interviews provided an opportunity for participants to share their experiences related to ED closures in rural communities in addition to recommendations for how they could be further supported. All interviews were audio recorded, transcribed verbatim, and analyzed thematically using NVivo software. Two researchers coded a sample of data to generate a consensus based codebook that was used for the remainder of the coding. Measures were taken to conduct intercoder reliability in alignment with published guidelines.

Results: A total of 5 participants were recruited from rural communities within Ontario. One dominant theme revolved around negative consequences related to loss of a support system, staff factors (eg. demoralized, increased stress, frustration), and increased wait times. Another theme centered around wellbeing within a community such as increased anxiety, loss of comfort, and additional stress. Most participants expressed concerns related to their lack of access to urgent care, and the ED as they closed. They also had concerns related to their inability to access primary care due to a lack of family physicians and nurse practitioners in their communities, potentially leading to increased ED usage. Some participants also discussed how their community was perceived to be less favourable community to live in or move to as a result of the closures. To keep EDs in rural communities open, participants recommended increased funding, incentivizing, making staff feel supported, and consulting with the community.

Conclusion: This study has helped to discover and understand the large number of direct impacts of rural ED closures on patients and communities. Rural communities have been disproportionately affected by ED closures. The findings of this study offer valuable insights into the impacts these closures have on patients and their wider communities. By exploring the specific experiences of patients directly impacted by closures, this study enhances the body of knowledge about rural ED closures and will contribute to future policy and decision making regarding rural emergency departments.

FACTORS ASSOCIATED WITH SENTINEL LYMPH NODE BIOPSY IN NORTHERN BC: A RETROSPECTIVE CHART REVIEW

SRPC Research Ref: Poster - 109

Kylie Peake, Dr. Evan Jost

Background: Sentinel lymph node biopsy (SLNB) is a technique that is utilized in the staging of a variety of different cancers to determine nodal basin status. It is therefore a critical part of the work-up for melanoma; however, at our centre there appears to be a lack of consistency on the criteria for SLNB completion.

Methodology: Retrospective chart review of patients aged >18 diagnosed with primary cutaneous melanoma between 2018 and 2022 in the Northern Health Authority of British Columbia. We performed descriptive statistics using student's T test and nonparametric tests where appropriate. We performed univariate and multivariate regression analyses to investigate associations between prognostic factors and receipt of SLNB.

Results: 159 patients were included, 86 of whom had a SLNB (53.4%) and 19 were positive (22%). Mean patient age at initial biopsy was 63.7 years. Most melanomas were stage T2a (31.4%, 95%CI). Mean Breslow depth for initial biopsy was 2.61mm and mean mitotic rate was 5.29/mm². Ulceration was present in 28.3% of the excised melanomas and satellitosis was present in 1.9%. Maximum Breslow depth demonstrated a statistically significant positive association with SLNB positivity (OR 1.22, 95%CI). Ulceration correlated with a moderately positive association with SLNB completion (OR 2.33, 95%CI) as well as SLNB positivity (OR 1.76, 95%CI). Mitotic rate and satellitosis did not increase the odds of having a SLNB. Patient age and medical specialty of the provider performing initial biopsy did not significantly influence SLNB completion or positivity.

Conclusion: In our centre, ulceration and maximum Breslow depth influence SLNB completion and positivity. Mitotic rate, satellitosis, and age do not correlate with an increased odds of receiving a SLNB.

IMMIGRANT PARENTS' PERSPECTIVES ON PREVENTING CHILDHOOD UNINTENTIONAL INJURIES IN NORTHWESTERN ONTARIO: A QUALITATIVE STUDY

SRPC Research Ref: Poster - 110

Fatemeh Zevari, Dr. Manal M. Alzghoul, Ms. Smruthi Venkateshan, Ms. Sabyah Azhar, Ms. Yamaan Alsumadi

Background: Unintentional injuries remain a leading cause of morbidity and mortality among children globally, including in Canada. Immigrant families constitute 23% of the Canadian population, and evidence indicates that children from immigrant families are 23% more likely to experience injuries compared to their non-immigrant peers, particularly if they are younger, male, reside in northern or rural areas, or belong to families with higher socioeconomic status. Cultural differences may influence perceptions of injury risk, leading immigrant parents to conceptualize injury prevention in ways that diverge from Canadian norms. However, existing literature on immigrant parents' understanding of injury risks and prevention strategies within the Canadian context is limited. This study aims to address this gap by exploring immigrant parents' perspectives on factors contributing to unintentional childhood injuries and their approaches to injury prevention.

Methodology: Sampling from rural northern Ontario communities, 14 immigrant parents (12 mothers) participated in a semi-structured interview on their understanding of factors contributing to unintentional injury and prevention strategies. Transcripts were analyzed using thematic analyses (Creswell & Creswell, 2017) in NVivo v. 11.

Results: Four key themes emerged:

Injury Risk as a New Norm: Parents highlighted the differences in injury risk perceptions between their home countries and Canada.

Injuries Are Preventable, but Children Are Unpredictable: While parents acknowledged the preventability of injuries, they emphasized the challenges posed by children's unpredictable behaviours.

Strategies to Minimize Injury Risk: Participants shared various culturally informed and practical approaches to reducing injury risks.

Priorities and Desires of Immigrant Parents: Parents expressed a lack of familiarity with Canadian laws, standards, and cultural norms related to risk and voiced a strong desire for accessible information on injury prevention tailored to their context.

Conclusion: This study provides valuable insights into the perceptions of immigrant parents regarding unintentional childhood injury risks within the Canadian context. The findings reveal that cultural differences and limited familiarity with Canadian norms and regulations influence their understanding of injury prevention. Addressing these gaps through culturally tailored educational initiatives and resources is essential to support immigrant families in effectively minimizing childhood injury risks.

IMPROVING RESOURCE STEWARDSHIP IN POST-PANDEMIC PRIMARY CARE: INSIGHTS INTO CHOOSING WISELY CANADA GUIDELINES

SRPC Research Ref: Poster - 111

Taylor Marshall, Mr. Nathan Jeffery, Mr. Div Patel, Dr. Lisa Allen, Dr. Roy Kirkpatrick

Background: The COVID-19 pandemic significantly disrupted primary care delivery, amplifying challenges in resource stewardship. Choosing Wisely Canada (CWC) guidelines aim to reduce unnecessary interventions. However, barriers to their implementation persist, particularly in rural settings where access to resources is limited and patient expectations often conflict with evidence-based care.

Methodology: An online survey of 127 primary care physicians across Canada collected demographic data, practice habits, and perspectives on CWC guidelines. Quantitative analysis measured trends, while qualitative analysis of open-ended responses identified recurring themes.

Results: Findings revealed high awareness of CWC guidelines (97.6%) but low familiarity with post-pandemic adaptations (36.2%) and patient-facing materials (61.4%). Key barriers included time constraints, fear of missed diagnoses, and limited rural resources. Physicians highlighted the need for tailored approaches in rural settings, where deviations from guidelines are often necessary because of challenges related to healthcare access.

Participants identified several opportunities for improvement, including integrating guidelines into electronic medical records and developing mobile applications to support decision-making. Enhanced patient education emerged as critical for addressing demands for unnecessary tests, often fueled by misinformation from social media.

Conclusion: Targeted medical and patient education, interprofessional collaboration, and technology integration are essential for improving CWC adoption. Tailored solutions that address rural-specific challenges and systemic barriers are pivotal for achieving sustainable resource stewardship in primary care.

**LANGUAGE DIVERSITY, EQUITY & VISIBILITY IN
RURAL CANADIAN EMERGENCY DEPARTMENTS**
SRPC Research Ref: Poster - 112

Savanah Tillberg, Dr. Sean Moore

Background: It is crucial for healthcare centres to participate in Equity, Diversity, and Inclusivity (EDI) initiatives in order to overcome some of the barriers experienced by Canada's ever growing and diverse population base. Language barriers significantly hinder communication in emergency departments, which may result in decreased patient satisfaction, trust, and/or medical error. Despite the expansions of diverse populations across the country, healthcare systems often lag behind in the ability to communicate with patients from other countries. English and French languages are the predominant languages available for most centres in Canada. This study aims to better understand language resources, both spoken and visual (for example, American Sign Language), in rural Canadian emergency departments that improve language access.

Methodology: Upon REB approval from Lakehead University, we hope to gain approval from SRPC to access the Rural Listservs to electronically distribute a brief survey via Qualtrics to physicians serving in rural emergency departments across Canada. This brief survey will seek to quantify: number and specific languages spoken or signed with sufficient fluency for medical interactions by the participant, the participant's comfort level being identified as a user of another language, and if the participants believe that visibility of language diversity within rural emergency departments could improve patient communication and lead to more satisfactory encounters with their physicians.

Results: Pending Survey Completion.

Conclusion: The findings from this research have the potential to inform healthcare policy and practice, ultimately improving care for diverse patient populations. My hope is that by presenting these EDI based issues at this conference, we will all be better prepared to offer satisfactory and effective care to diverse populations across the country.

**RURAL MEDICAL EDUCATION IN CANADA: A
SCOPING REVIEW OF KEY FINDINGS AND
OPPORTUNITIES FOR GROWTH**
SRPC Research Ref: Poster - 113

Danielle Vucenovic, Jilian Sing, Ysabel Macdonald, Victor Ng

Background: Healthcare access is an increasingly important social determinant of health that more severely affects rural and remote populations. Across Canada, medical schools have implemented policies and programs aimed at encouraging medical students to work in underserved areas to increase the rural physician workforce.

Methodology: We conducted a scoping review following the Arksey & O'Malley framework (2005) and the PRISMA extension for scoping reviews. Inclusion criteria were studies with primary data, conducted in Canada, written in English and published from 2010 and later.

Results: Initially, 92 records were retrieved and after abstract screening and full-text analysis by two independent researchers, 31 articles were included in this review. Most institutions utilize admissions pathways to recruit potential students from rural and remote communities. Additionally, mandatory and elective clinical programming at rural locations were shown to be correlated with increasing rates of practicing rural family physicians. Most of these rural experiences emphasized family medicine, creating potential to expand rural programming to include specialties. Establishing satellite remote medical campuses should be considered for future expansions while being mindful to not overburden local physicians.

Conclusion: Though rural physician retention remains a challenge, Canadian medical schools have established many programs to increase student exposure to rural communities. These programs begin in admissions and continue throughout all years of undergraduate medical education. There continues to be opportunities to expand and refine such efforts to improve physician recruitment and healthcare access to rural and remote communities.

SOCIAL PRESCRIBING IN RURAL PRIMARY CARE: FOSTERING PATIENT AND PLANETARY HEALTH, WHILE BUILDING RESILIENCE TO ENVIRONMENTAL CHANGE

SRPC Research Ref: Poster - 114

Kennedy Graham, Dr. Stefan Grzybowski, Esther Kim

Background: Human behaviors shaped by cultural and community experiences have a significant impact on both personal and planetary health. Human activity, in particular, is a primary driver of climate change, which presents an urgent and fundamental threat to health. Ecological disruptions disproportionately affect rural communities, which are deeply embedded in nature. Similarly, rural communities face unique challenges related to non-communicable diseases (NCDs) due to exposure to environmental toxins (such as chemicals, biological agents, physical pollutants, air/smoke, and pesticides), limited healthcare access, fewer preventive resources, and greater disparities in health outcomes. Primary care physicians in such communities are uniquely positioned to provide patient care in a holistic and long-term manner, making them central to adaptation efforts. It is essential for general practitioners to create innovative solutions that promote sustainable and health-enhancing behaviors that benefit both human and planetary health.

Social prescribing offers a valuable framework to address these needs, especially prescriptions involving exposure to nature. By connecting patients with community-based, non-clinical health and social care interventions, physicians can foster values of health and environmental stewardship simultaneously, targeting both preventable health conditions and ecological challenges. Social prescriptions serve as cost-effective, widely accessible alternatives to traditional care, promoting community resilience, healthy activity, and environmental protection or restoration. Additionally, social prescribing functions as preventative medicine, addressing lifestyle factors that reduce pharmaceutical burdens. Social prescriptions may encompass activities such as cycling, jogging, nature-inspired art, fruit and vegetable prescriptions, horticultural therapy, wildlife monitoring, open water swimming, tree planting, and more.

This article aims to explore the intersections of social prescribing, rural community health, and climate change in existing literature. This article will highlight the benefits of social prescriptions as a tool to address health, climate, biodiversity, and the environment, providing valuable insights for physicians and policymakers seeking to integrate social prescribing into practice and policy.

Methodology: A literature review was conducted using key search terms to identify published studies related to our research question. OVID Medline, Web of Science, and EBSCO were searched. Papers were considered that fit within a broad lens of social prescriptions that were intended to benefit patients and the planet. Search terms included “climate*,” “rural,” “planet*,” “pro-ecologic*,” “green*,” “nature based,” “physician,” and “social prescri*,” and “prescri*.” Selected articles included a social prescription element and integrated outcomes that were rooted in both ecological and human health benefits.

Literature was excluded if 1) the context was unrelated to the relationship between social prescribing, planetary, and personal health or 2) the study was published in a language other than English. The literature was assessed and synthesized into a narrative review.

Results: Our search of the literature identified 17 relevant articles. In our review, five broad themes were identified: 1) Social prescribing as preventative medicine 2) Social prescribing as an equitable therapeutic alternative 3) Motivation and pro-ecological behavior in patients 4) Barriers and facilitators, and 5) Lessons for rural contexts. 1- Social prescribing is an emerging tool for preventative medicine, prioritizing individual well-being, community resilience, and environmental health. Evidence highlights its benefits for patients, especially in rural areas where geographic isolation exacerbates health challenges. It reduces polypharmacy risks, lowers healthcare costs, and fosters social cohesion

and lifestyle changes to address physical and psychosocial illness – critical for isolated populations. Furthermore, nature exposure through social prescribing improves cognitive, cardiovascular, respiratory, metabolic, and immune health. It also mitigates eco-anxiety, PTSD, and future vulnerability fears, which are common in rural areas facing climate-related events. Finally, social prescribing promotes planetary health by reducing the pharmaceutical carbon footprint and encouraging pro-ecological behaviors.

2- Social prescribing offers equitable care provision. Primary care physicians can design personalized prescriptions that address chronic illness, mobility issues, and social disadvantage. Existing literature emphasizes integrating Western and Indigenous approaches, stressing cultural safety amid colonial histories, particularly in rural Indigenous communities.

3- Current research shows that connectedness to nature fosters sustainable behaviors and greater happiness. Several papers emphasize the importance of exposure to greenspace at a young age, for better and longer lasting pro-ecological behaviors. Moreover, meaningful environmental contributions enhance self-efficacy, sustainability skills, and positive affect, reinforcing such sustainable behaviors. 4- Studies identify barriers and facilitators from both physician and patient perspectives. Providers face challenges involving training, funding, knowledge of resources, burnout, and infrastructure, while patients contend with trust, perceived benefits, aptitude, weather, access, affordability, and community support.

5- Of the 18 reviewed articles, only two addressed patient and planetary health co-benefits in rural contexts, highlighting the gap in research on using social prescribing as a climate adaptation tool. One paper identified several challenges that rural communities face including balancing fuel emissions from medical travel with healthcare needs, as well as limited disaster preparedness. Despite barriers, rural residents exhibit strong motivation for behavioral change. Overall, existing literature lacks comprehensive analysis of rural-specific social prescribing strategies, initiatives, and challenges to implementation.

Conclusion: This review highlights the potential of social prescribing as an equitable, dual solution to enhance personal and planetary health. By integrating nature-based interventions, such as physical activities, horticulture, and ecological stewardship, social prescribing fosters a stronger connection between individuals and their natural surroundings, resulting in greater wellbeing and the adoption of sustainable behaviors. This approach is particularly impactful rurally, though research lacks in examining strategies or initiatives that involve social prescription in rural communities. Despite its advantages, barriers to widespread implementation of social prescribing remain and must be addressed to refine approaches and promote swift uptake by primary care providers. Overall, social prescribing has the potential to become a critical tool in both climate change adaptation and the promotion of holistic, sustainable healthcare practices for personal and planetary health.

THE BROSELOW TAPE ISN'T PULLING ITS WEIGHT: A REVIEW OF THE LITERATURE FROM 2017 TO PRESENT SRPC Research Ref: Poster - 115

Caitlin Bittman, Georgia Powell, Cynthia Kwan, Ilana Bank

Background: Precise weight-based dosing is essential for optimal and safe medication administration in pediatric emergency care. However, obtaining an accurate scale weight during emergencies is often impractical. Clinicians must therefore rely on other rapid weight estimation methods. The Broselow tape (BT) is a widely used tool for pediatric weight estimation, and its use is considered standard of care. In 2017, a systematic review by Wells et al. found that the Broselow tape estimated weight within 10% of actual weight in only 53.7% of cases across 58 studies. Newer methods using dual anthropometric inputs, including the Mercy method and PAWPER tape, consistently outperformed the Broselow tape in accuracy but were less extensively studied. Since 2017, numerous studies have been published, including direct comparisons to the Broselow tape. In addition, a new edition of the Broselow tape was released in 2019. This updated review synthesizes recent data to evaluate the accuracy of the Broselow tape and compare it with the Mercy method and PAWPER tape.

Methodology: A PubMed search (2017–present) using the term “Broselow” yielded 79 results. Studies were evaluated by a single investigator (CB). Inclusion criteria required new research published as full text assessing the Broselow tape’s accuracy, either independently or in comparison with other methods. Sixteen studies were excluded at screening, one was excluded due to difficulties retrieving the article in English, and an additional 29 studies were excluded after full text review. Articles were excluded if they were not new research or full-text publications (e.g., letters to the editor or abstract only), if the reported data was incompatible with the accuracy metrics of interest, if they were included in the 2017 Wells et. al review, or if they were not on the topic of interest. A total of 33 studies were included in this literature review. Accuracy metrics collected include the percentage of patients with estimated weight within 10% (PW10) and 20% (PW20) of actual weight, mean percentage error (MPE) of estimated weight from actual weight, and mean error (ME) in kilograms. Accuracy data from studies directly comparing the Broselow tape to PAWPER tape and/or Mercy method were also collected.

Results: The reviewed articles (N= 33, n= 2,004,889) indicate that the PAWPER tape and Mercy method continue to outperform the Broselow tape across most patient groups and populations, in particular those at the extremes of age and body habitus. The Broselow tape achieved PW10 accuracy ranging from 39.8% to 69.9% across studies, with substantial variability due to differences in study populations and methodologies. In comparison, the PAWPER tape PW10 ranged from 61.6% to 87.5%, and Mercy PW10 ranged from 44.9% to 79.8%, with only two instances of PW10 exceeding 65%. Still, Mercy method demonstrated higher accuracy than Broselow, albeit lower than PAWPER.

Conclusion: This updated review underscores the limitations of the Broselow tape as a weight estimation tool, particularly in rural emergency settings where pediatric emergencies are infrequent, and clinician proficiency in pediatric resuscitation is harder to maintain. PAWPER tape and Mercy method, which incorporate dual anthropometric measurements, provide superior accuracy without significantly increasing complexity or cost. For rural clinicians facing additional challenges managing these situations, the Broselow tape has become an outdated tool. Adopting more accurate yet practical tools like PAWPER or Mercy could enhance pediatric emergency care and medication safety. This review supports updating clinical guidelines and promoting evidence-based practices to better equip rural healthcare providers in pediatric emergency care.

TRENDS IN ANEMIA AND IRON DEFICIENCY PREVALENCE: A COMPARISON BETWEEN RURAL AND URBAN POPULATIONS IN ALBERTA 2010-2022 SRPC Research Ref: Poster - 116

Sukyong Lee, Amanda Radil, Cliff Lindeman, Doug Klein

Background: Iron is essential for the production of red blood cells, and insufficient iron impairs the body's ability to meet its oxygen demands. This can lead to anemia (not having enough red blood cells), fatigue and, in severe cases, death. Iron deficiency is a prevalent public health issue, affecting over 2 billion people worldwide. However, there is limited understanding of how iron deficiency specifically impacts different populations in Canada. Specifically, rural areas may face unique challenges that affect the prevalence of iron deficiency and anemia. This study aims to examine the trends in iron deficiency and anemia prevalence in Alberta, with a particular focus on comparing rural and urban populations over the past decade.

Methodology: We analyzed electronic medical records from the Northern Alberta Primary Care Research Network and Alberta Primary Care Research Network. Our study cohort includes data from 177,892 patients aged six years and older from 2010 to 2022. Ferritin and hemoglobin levels were used to assess the prevalence of iron deficiency and anemia. Python was employed to plot the trends of iron deficiency and anemia by urban vs. rural, with stratification by sex, given its significant role in iron deficiency and anemia.

Results: We found that the rural population generally had higher iron deficiency and anemia prevalence compared to their urban counterparts. We also observed that in more recent years, 2021 and 2022, the iron deficiency prevalence in urban groups was similar to or higher than that in rural groups for the first time. This trend was not observed in the anemia data. There was a modest increase in anemia prevalence for all groups. For urban males, anemia prevalence increased from 7.1% in 2010 to 9.3% in 2022, while rural males saw an increase from 10.3% to 13.5%. Urban females' anemia prevalence increased from 8.5% in 2010 to 10.8% in 2022, while rural females saw an increase from 11.1% to 14.8%. Overall, females exhibited higher anemia and iron deficiency prevalence than males in both rural and urban settings.

Conclusion: Our findings show that rural populations may face a higher burden of anemia and iron deficiency. Notably, the population as a whole has shown an increase in anemia prevalence over the years, which warrants further investigation to identify potential contributing factors. Addressing these disparities, particularly in rural areas, could help inform targeted interventions to improve health outcomes related to anemia and iron deficiency.

UNDERSTANDING FROSTBITE PRESENTATION AND CARE IN ONTARIO 2010-2018

SRPC Research Ref: Poster - 117

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Background: Frostbite is a cold weather injury presenting a significant risk of functional morbidity due to amputation. There is a paucity of studies investigating the epidemiology and regional distribution of frostbite.

Methodology: Data was collected from the Institute of Clinical and Evaluative Sciences for adults over 18 years of age presenting to an Ontario emergency department from January 1, 2010 to December 31, 2018. Patients were followed for 30-day readmission and additional treatments within 180 days of presentation.

Results: 5311 patients presented with unique episodes of frostbite in Ontario. Most cases were classified as unspecified (N= 3 775) or superficial (N= 1 379) frostbite of the extremities, primarily in male patients with mean age 40 and few comorbidities. Cases were seen across all income and marginalization quintiles, with a trend towards more cases in greater marginalization indices and a higher proportion of homelessness seen in deep frostbite presentations (10%) compared to superficial (4.4%) or unspecified (5.6%). Most cases (75%) presented to small or medium size non-academic hospitals.

Conclusion: Frostbite patients presented to small and medium non-academic hospitals with increased cases during extreme cold weather. While there was a trend towards more cases in lower income and marginalized populations, frostbite impacted all segments of society. Frostbite education initiatives involving patients and providers have the potential to positively impact patient outcomes.

ENHANCING CONTINUITY OF CARE AFTER EMERGENCY DEPARTMENT VISITS AND INPATIENT DISCHARGE FOR PATIENTS AT THE ASSOCIATE FAMILY PHYSICIANS CLINIC IN SWIFT CURRENT (IN PROGRESS)

SRPC Research Ref: Poster - 201

Dr. Emmett Harrison, Dr. Richard Ngo

Background: Continuity of care following discharge from emergency department (ER) visits or inpatient stays is essential for patient outcomes but often lacks effective follow-up, leading to potential readmissions or worsened health conditions. This gap is particularly evident in smaller community settings, such as the Associate Family Physicians Clinic in Swift Current, where timely follow-up with a patient's regular or treating provider can be challenging. Existing barriers include a shortage of healthcare resources, scheduling issues, and a lack of continuity for medical learners. The Modified Usual Provider Continuity Index (mUPC) and Resident Provider Continuity Index (RPC) were developed to quantify and improve this aspect of care.

Methodology: The study employs a mixed-methods approach, collecting quantitative data through the clinic's electronic medical record (EMR) system and qualitative data from patient and provider feedback. Baseline and monthly data reports track the frequency of urgent follow-up visits after ER discharges or inpatient stays. Educational interventions and process improvements are implemented, with continuous feedback guiding adjustments.

Results: Preliminary findings indicate that current continuity levels are below target, with baseline mUPC at 0.33 and RPC at 0.17 for ER follow-ups. Inpatient discharge continuity showed an mUPC of 0.80 and

RPC of 0.33, suggesting room for improvement, particularly in resident continuity.

Conclusion: While still in progress, this project demonstrates a need for enhanced strategies to improve follow-up care. By refining processes and implementing educational interventions, it aims to strengthen continuity for both patients and resident physicians, serving as a potential model for other healthcare settings.

IMPACT OF SOCIO-DEMOGRAPHIC FACTORS AND COMMUNITY REMOTENESS ON RSV HOSPITALIZATION RATES IN YOUNG CHILDREN IN BRITISH COLUMBIA: A POPULATION-BASED RETROSPECTIVE COHORT STUDY

SRPC Research Ref: Poster - 202

Taylor Jamieson-Datzkiw, Allison Watts, Marina Viñeta Paramo, Hind Sbihi, Pascal M Lavoie

Background: Respiratory syncytial virus (RSV) infection is a leading cause of hospital admissions in young pediatric patients. Infants in remote communities may be disproportionately affected by severe infections, leading to higher RSV-related hospitalization rates, but data are lacking on contributing factors.

Methodology: This population-based retrospective cohort study included all children born in BC from 2013 to 2023, registered in the provincial health service plan, followed up until their 2nd birthday or April 1st, 2024, whichever came first. Data were obtained from the BC Covid-19 Cohort. RSV hospital admissions were defined using ICD-10 codes (J12.1, J20.5, J21.0 and B97.4), with incidence rates (IR) calculated per person-years. The child's community health service area was used to assign one of four remoteness categories (remote, rural, urban, metropolitan) defined by the BC Ministry of Health based on Statistics Canada's Index of Remoteness. Area-level socio-economic factors from the 2016 Canadian Census included household size, neighbourhood income, and the BC-Canadian Index of Multiple Deprivation (CMID). Mixed-effects Poisson regression was used to model the risk of RSV hospitalization by level of remoteness after adjustment for sex, co-morbidities, prematurity and socio-economic factors.

Results: Of 431,157 children, 4,861 (1.1%) were hospitalized for RSV, including 55 (1.7%) from remote communities. IRs for RSV admissions were significantly higher in remote communities compared to metropolitan areas [8.5 (6.4-11.1) versus 5.0 (4.8-5.2) per 1000 person years, respectively]. The proportions of PICU stays and the need for air transport were also highest in remote communities with 38% of children from remote communities versus 10% from metropolitan requiring admission to PICU, and 18% versus <1% requiring air transport, in remote and metropolitan communities, respectively. Children from remote communities had poorer scores on several socio-economic dimensions compared to metropolitan communities, particularly for neighbourhood income, economic dependency and situational vulnerability ($p < 0.0001$ by chi-square). After adjusting for all socio-economic factors in addition to other variables including gender, prematurity and comorbidities, a 38% increased RSV hospitalization risk remained in remote communities.

Conclusion: While socio-economic factors affect RSV hospitalization risk across all geographic areas, the impact is disproportionately higher for children born in remote communities. This study emphasizes the importance of socio-economic factors and reveals unidentified remoteness-related factors that need to be explored to guide interventions to eliminate the high RSV burden in these communities.

PROVINCIAL DISTRIBUTION OF OBSTETRICAL CARE
AND PATIENT RELOCATION FOR DELIVERY IN
MANITOBA
SRPC Research Ref: Poster - 203

Marie Jones, Vanessa Poliquin, Andora Jackson

Background: Obstetrical care in Canada is multifaceted, with multiple provider types, and varying capacity for care among centres. The SOGC's recommendation is that patients in rural and remote communities receive high-quality maternity care as close to home as possible, however it has been unclear how we are doing as a province to meet this recommendation. The trend over time has been centralization of care and the loss of low-risk obstetrics in smaller more remote locations due in part to staffing and safety factors. Provincially, patients with urgent complaints are often transferred to larger centres and often there is little understanding between providers on the type of care offered between sites. Previous work has shown us that the patient experience suffers when patients are away from their support network in the peripartum period. In addition, patients who are required to travel to deliver have increased rates of adverse perinatal outcomes. As a precautionary measure, patients residing in some remote communities in Manitoba are instructed to stay in hotels isolated from their communities for weeks preceding their delivery. Apart from financial burden, isolation from support networks, and the stress of being in an unfamiliar environment for delivery, some Indigenous patients face the additional loss of birth on ancestral territories and loss of ceremony and traditions such as those passed down from traditional birth keepers. It remains unclear if incorporation of traditions would be more feasible closer to home where other community members would be more readily available to attend. Previous work has identified that in Manitoba, Indigenous women have higher rates of inadequate prenatal care and perhaps distance and lack of local providers plays a role in this.

Manitoba has thirteen facilities offering obstetrical and newborn care, each with its own delivery model and capacities. In Manitoba, we lack tiers of service at our centres which could assist in patient care and in program development. The capacities at each site differ and there is often poor understanding between sites leading to potentially missed opportunities for repatriation of patients and transfers to a closer site that could serve the patient.

Methodology: In collaboration with the OWG, we compiled a list of active obstetrical delivery facilities in Manitoba and identified the operational lead and the clinical lead for each. Fifteen surveys were completed by the operational leads detailing obstetrical and newborn capabilities at each site, challenges and successes and model of care provision. Patient delivery data was collected in accordance with the fiscal year which was April 2021-March 2022 to include postal area of residence and postal area of delivery.

Results: There were 13 active facilities for obstetrical care in Manitoba in the 2021/2022 fiscal year. Of the provinces 16,129 total deliveries 6,059 (37.6%) are at HSc Women's Hospital in Winnipeg, 4,740 (29.4%) are at St Boniface Hospital in Winnipeg and the remaining were outside of Winnipeg. There was a variety of practice models with 94% of the deliveries in Winnipeg being done by Obstetricians, vs in some smaller centers Family Physicians did the majority of deliveries (75% of deliveries were done by Family Physicians in Bethesda). Some centres included general surgeons and or midwives in their obstetrical care model. In some centres newborn care was exclusively done through Family Physicians rather than paediatricians. In general terms, the majority of patients residing in the Northern Regional Health Authority (NRHA) are delivering in Thompson and the Pas. The exceptions are the Island Lake District patients where all 236 deliveries were in Winnipeg (230 in St B and 6 at HSc), and the Norway House District where of the 104 patients, 85 delivered in Winnipeg (72 at StB and 13 at HSc). Between the two neighboring districts this is a total of 321 patients relocated to Winnipeg for delivery out of 340 deliveries (94%). In addition, Churchill, although located in the North, is part of WRHA SDO

and 8 of the 9 deliveries from this district were in Winnipeg. In Prairie Mountain Health Authority (PMH) the majority of deliveries stay within the SDO. In districts adjacent to other SDOs the deliveries seem to go to the nearest facility regardless of SDO. For example, of the 105 patients from the Porcupine Mountain District, 54 delivered in Dauphin (PMH) and 23 delivered in the Pas (NRHA). In the southernmost districts of Southern Health – Sante Sud (SH-SS), the majority of patients are delivering in the community sites of Boundary Regional Health Centre and Bethesda Regional Health Centre. As the Districts get closer to Winnipeg the number of deliveries occurring in Winnipeg seems to increase regardless of if there is a community site nearby. The Interlake-Eastern Regional Health Authority (IERHA) has only one delivery facility (Selkirk Regional Health Centre). The SDO had 1,464 residents deliver in the 2021/2022 fiscal year, with 445 occurring at the Selkirk Regional Health Centre. This means that the Selkirk Regional Health Centre is doing 30% of the SDO's deliveries. Of the patient residing in the Selkirk district, 39% delivered in Winnipeg. The surveys allowed us to draft a preliminary level of care document based on capabilities at each site. Through the surveys we also identified a need for ongoing training of enhanced skills for Family Physicians and further recruitment and retention of nurses, midwives, generalists, and specialists to our communities outside of Winnipeg. An additional area of need was breastfeeding support.

Conclusion: Manitoba has a diverse population with obstetrical and neonatal needs being met through a variety of models and interdisciplinary teams with a trend towards patient relocation to Winnipeg for delivery. In order to prioritize safe patient care closest to home, approaches need to be individualized to the unique needs of each individual facility and region. In terms of patient relocation for delivery, the primary areas identified for further information gathering and support include the underserved IERHA, the SH-SS, and the Island Lake/Norway House districts where there is a large number of patients being relocated to Winnipeg when birth in the community used to occur. The surveys identified specific staffing concerns across the sites that can be acted upon to ensure ongoing coverage and provision of care at the sites. These include recruitment and retention of nurses, midwives, anesthesiologists, pediatricians, obstetricians, and family physicians with or without enhanced skills training. The proposed level of care designation, once finalized, will be useful to inform referral processes between facilities, advocate for resources, and encourage patient care closest to home.

RURAL AND REMOTE MEDICINE: URBAN-RURAL DISCREPANCIES IN 2SLGBTQIA+ PRIMARY CARE SERVICES SURVEY

SRPC Research Ref: Poster - 204

Dr. Jessica Kainth, Dr. Andrea Daley

Background: Rural and/or remote communities generally have access to a smaller number and lesser range of health and social services. This could indicate that there are limited 2SLGBTQIA+ services as well, though focused research on the intersectionality of rural and remote areas and the 2SLGBTQIA+ population has not been conducted extensively in Canada. In general, studies have shown that 2SLGBTQIA+ Canadians experience worse health outcomes of diseases such as cancer, chronic fatigue, poor mental health, and substance-dependence disorders compared to other Canadians. Family physicians are one health care professional that 2SLGBTQIA+ individuals may go to explore health topics or concerns related to minority sexual and gender identities, such as sexual health, gender dysphoria, gender affirmation surgery, and differences in sexual development and characteristics. This is especially true for Canadians who have grown up with one family doctor and developed a strong, trusted doctor-patient relationship (Bell & Purkey, 2019). A study conducted by Bell & Purkey (2019) showed that transgender patients prefer to be cared for by their family physicians instead of being referred to other physician specialists, but also feel that their doctors lack knowledge on trans identities and related health care. In rural and/or remote communities, this is particularly important as referrals may not be an option, and funding for virtual care has recently been reduced in Ontario. Family physicians must have adequate knowledge of appropriate history taking, screening tests, and community/social services related to 2SLGBTQIA+ health and 2SLGBTQIA+ affirming support. It is important to know what information rural and/or remote family physicians are comfortable talking about with 2SLGBTQIA+ patients based on their knowledge, education, beliefs, and restrictions for proper care. It is also important to know whether or not they have awareness of easy-to-access health and social services in their area for these populations.

Methodology: An online survey (qualitative/quantitative): specifically for primary care physicians and family medicine residents from rural, remote, and urban communities in Ontario, to collect data on demographic data, 2SLGBTQIA+ resources and services they use, and what resources they feel are still needed.

Results: We are in the process of analyzing data, but we anticipate that this project will contribute to better understanding of the relationship between family physicians and providing optimal 2SLGBTQIA+-affirming care in rural and remote communities across Ontario.

Conclusion: We hope this study will lead to other potential research, including to assess what resources, courses, and organizations we can promote or create, to give physicians easier access to information and social services that can be provided to support and empower 2SLGBTQIA+ individuals. This research will assist in bridging some gaps in care that family physicians could give to patient populations who are a part of rural and remote 2SLGBTQIA+ communities and therefore expand comprehensive care. It will also help identify areas that need further research to bridge these gaps even further.

A COMPLICATION OF WEIGHT LOSS SURGERY: A RURAL CASE OF SEVERE VITAMIN B12 DEFICIENCY

SRPC Research Ref: Poster - 301

Dr. Krystyna Zhaorong Wang MDCM FRCPC, Dr. Leonora Lopez Gardner MD CCFP, Dr. Volodymyr Omelchenko MD

Background: We introduce a case involving a 43-year-old female patient, who presented to rural ED with a 2-week history of weakness. Her past medical history is significant for roux-en-y gastric bypass surgery in 4 years ago.

Methodology: She was not taking any prescription or over-the-counter medication. There was no clinical suspicion of blood loss.

Her initial vital signs were BP 88/56, heart rate 89bpm sinus, SpO2 98% on RA. On exam, she has evidence of sclera icterus, oral pallor and bilateral non-pitting edema.

Initial investigation revealed Hgb of 39 g/L, WBC 2.7 x 10⁹/L, platelet 102 x 10⁹/L. MCV 138.8 fL

Hemolytic workup showed LDH > 2000 U/L, total Bilirubin 72 umol/L, direct Bilirubin <2 umol/L, Fibrinogen 1.9 g/L, Haptoglobin <0.1 g/L.

INR 1.2. Renal panel, liver enzymes and lipase are within normal limit.

She had evidence of splenomegaly on CT with measurement of 13 x 5.5 x 14cm. Anemia work-up including iron studies and vitamin B12 were sent. PRBC transfusion were initiated. The patient was admitted to hospital for severe hemolytic anemia and pancytopenia. Her anemia workup returned, Vitamin B12 level was undetectably low (<74 pmol/L). Vitamin A level was low at 0.4 umol/L. 25 Hydroxyvitamin D level was deficient at 10 nmol/L. Other nutritional markers including Copper and Zinc were within normal limit.

She was subsequently started on parenteral Vitamin B12, oral Vitamin D and multivitamin supplementations. She was assessed and closely followed by the inpatient nutritional services team. Upon further history, it appears that unfortunately, she was lost to follow-up from her bariatric medicine team 1 year after her surgery due to distance required to travel to tertiary centre (>4 hours by road) and COVID 19 pandemic. She stopped taking her vitamin supplementation then. In addition, due to frequent turnover of family doctors in her rural facility, there was a lack of continuity of care resulting in loss of routine yearly post bariatric surgery blood work involving monitoring of nutritional markers.

After approximately a week of hospitalization, the patient was discharged home with a Hgb of 69 g/L. She was maintained on outpatient weekly parenteral Vitamin B12, as well as oral iron, vitamin D and multivitamin supplementation. At her 1 month follow up post hospital discharge, her Hgb and MCV recovered to 122 g/L and 94.6 gL respectively.

Results: Bariatric surgery increases the risk of Vitamin B12 deficiency, especially with inadequate supplementation post-operatively. Severe Vitamin B12 deficiency can lead to pancytopenia and hemolysis through mechanisms such as impaired DNA synthesis and erythropoiesis, intramedullary hemolysis, chromosomal fragility leading to bone marrow failure.

Conclusion: We reported a rural case of severe Vitamin b12 deficiency in a patient who underwent Roux-en-Y gastric bypass, resulting in severe pancytopenia.

A TWIST ON HIATAL HERNIAS - A RARE CASE OF GASTRIC VOLVULUS IN A RURAL EMERGENCY DEPARTMENT.

SRPC Research Ref: Poster - 302

Robert McCarthy

Background: Although hiatal hernias are common, acute complications from them are not. One rare but life-threatening complication of hiatal hernias is Gastric Volvulus - an abnormal rotation of the stomach about its axis that results in obstruction and, if untreated, necrosis and perforation. This condition is a surgical emergency and requires expeditious management. Here, we present a case of gastric volvulus in a 51-year-old female that presented to a rural emergency department.

Methodology: This is a case report of a patient presenting with severe abdominal pain and persistent retching which was ultimately secondary to gastric volvulus. Verbal consent was obtained from the patient prior to presenting this work.

Results: Gastric volvulus classically presents as Borchardt's Triad - epigastric and left lower chest pain, persistent retching and an inability to pass a nasogastric tube. It is a life-threatening condition that, if not managed expeditiously, can lead to gastric necrosis and perforation. Therefore, prompt surgical intervention is typically explored. In rural settings without access to surgical interventions, transfer to tertiary centers is required. Given limitations in ambulance and healthcare professional availability, along with adverse weather conditions and long distances, transport times can be significantly delayed. In this particular case, successful passage of an NG tube resulted in gastric decompression and immediate pain relief. This allowed the medical team to pursue urgent (as opposed to emergent) transfer. The patient was subsequently admitted for several days of Total Parenteral Nutrition (TPN) followed by definitive surgical management of the hiatal hernia.

Conclusion: Gastric Volvulus is a rare but life-threatening complication of hiatal hernias that should be considered on the differential diagnosis for epigastric abdominal pain and chest pain. Although "classically" identified by inability to pass an NG tube, initial attempts to decompress the stomach should be pursued. This can not only alleviate pain, but can temporize matters at times when immediate transport is not possible - a common scenario faced by emergency medicine providers practicing in under-resourced rural and remote settings.

ASSESSING CRITERIA FOR INTERNATIONAL MEDICAL GRADUATE SELECTION AND PRACTICE READINESS IN RURAL SASKATCHEWAN: A SURVEY-BASED INVESTIGATION OF FACULTY ASSESSORS AND RURAL PHYSICIAN LEADERS

SRPC Research Ref: Poster - 303

Valiyah Khurshid, Dr. Jon Witt, Udoka Okpalauwaekwe, Dr. Taofiq Oyedokun, Carla Fehr

Background: International Medical Graduate Family Physicians (IMGs) play an essential role in supporting healthcare in rural Saskatchewan. To ensure that IMGs are well-prepared for practice in the Saskatchewan healthcare system, they undergo a 12-week Clinical Field Assessment through the Saskatchewan International Physician Practice Assessment (SIPPA) program. Despite the critical importance of these assessments in Saskatchewan and elsewhere in Canada, there is a paucity of research examining the specific criteria utilized to determine the selection of IMG Family Physicians to a Practice Ready Assessment (PRA) program.

Methodology: A cross-sectional survey targeted SIPPA assessors and rural physician leaders from the Saskatchewan Health Authority (SHA)

to understand priorities regarding factors associated with recent clinical practice when selecting IMG physicians for the SIPPA program.

Results: Of 104 physicians, 63 completed the survey (61% response rate). A greater duration of recent clinical practice was considered a key factor by most respondents. For IMGs out of practice for less than three years, 45% viewed 3-6 months of recent practice as sufficient, while 48% considered 6-12 months necessary for those out of practice for 3-5 years. For IMGs out of practice over five years, 85% of SHA leaders supported 12-24 months of recent practice compared to 51.6% of SIPPA assessors ($p < 0.05$). The study also highlighted the value of other clinical experience, including roles such as Licensed Clinical Associate, additional post-graduate training and GP-specialist practice, in maintaining practice currency, thereby emphasizing the importance of these roles in the selection process.

Conclusion: The study's findings, based on the perspectives of SIPPA assessors and SHA leaders, underscore the shared value of increased duration of recent clinical experience as well as clinical experience as a licensed Clinical Associate, additional post-graduate training and GP-specialist practice for the selection of IMG Family Physicians to SIPPA. These findings provide valuable insights into the criteria for selecting IMG Family Physicians for practice readiness in rural Saskatchewan.

ASSESSING INTERNATIONAL MEDICAL GRADUATE (IMG) PROFICIENCY IN PROCEDURAL SKILLS DURING A 12-WEEK CLINICAL FIELD ASSESSMENT

SRPC Research Ref: Poster - 304

Kishore Hari, Udoka Okpalauwaekwe, Carla Fehr, Dr. Jon Witt, Segun Oyedokun

Background: Assessment and training of procedural skills are critical components of medical education; however, there is limited research pertaining to International Medical Graduates (IMGs). This study aims to quantify IMG physicians' exposure to and competency in procedural skills during a 12-week clinical field assessment (CFA) in the Saskatchewan International Physicians Practice Assessment (SIPPA) program.

Methodology: We analyzed data from skill evaluation forms completed by SIPPA preceptors of IMGs enrolled between 2017 and 2023. Descriptive statistics were calculated to assess exposure and competency across 66 procedures.

Results: Data from 299 participants were reviewed. Procedural competencies were categorized by exposure level as: high (80-100%), moderate (40-79%), low (20-39%), and very low (<19%). High-exposure procedures included injections, EKG interpretation, cerumen removal, and laceration repair. Moderately exposed procedures included lumbar puncture, central line insertion, and slit lamp examination. Low- to very-low-exposure procedures included thoracentesis, phlebotomy, and intraosseous needle insertion. Procedural skill exposures for all 66 items were generally consistent across 2017-2023 with minor variations observed.

Conclusion: Our study identified areas where IMGs demonstrate higher exposure and competency, especially in common procedures, highlighting the need to focus on specialized procedures with lower exposure. The variability in procedural exposure suggests the need for standardized training protocols to ensure comprehensive skill development.

INCREASING NUMBER OF SYPHILIS CASES IN PREGNANT VULNERABLE POPULATIONS IN MANITOBA AND ENHANCED SCREENING - AN ONGOING SCOPING REVIEW
SRPC Research Ref: Poster - 305

Tanzima Islam, Dr. Vanessa Poliquin

Background: Syphilis, a sexually transmitted infection (STI) has seen a concerning rise in cases among pregnant individuals in Manitoba, Canada. From 2015 to 2019, a total of 386,350 individuals were tested for syphilis, and the reported rate of syphilis cases increased steadily, from 462 per 100,000 population in 2015 to 704 per 100,000 in 2019. This upward trend in syphilis cases presents a public health challenge, particularly for pregnant individuals who may be at risk of adverse pregnancy outcomes such as stillbirth, preterm birth, and congenital syphilis. In Canada, routine screening for syphilis and other STIs is part of the standard of care during the first prenatal visit. However, the rising rates of syphilis in the general population, especially among pregnant individuals from vulnerable populations, suggests that the current screening protocols may no longer be adequate. Pregnant individuals from these groups, especially those with limited access to healthcare, may not benefit from the existing guidelines, potentially leaving them at higher risk of complications. Syphilis disproportionately affects pregnant individuals from vulnerable populations, including Indigenous peoples. Indigenous individuals in Manitoba are at a particularly high risk for syphilis and other STIs. Social determinants of health, such as poverty, inadequate access to healthcare, unstable housing, and systemic discrimination, contribute to higher rates of syphilis within these communities. Historical trauma and ongoing stigmatization of Indigenous peoples exacerbate these challenges, resulting in lower rates of healthcare utilization and increased barriers to early prenatal care and STI testing. Fear of child apprehension due to potential concerns about substance misuse or STI exposure also contributes to a reluctance to seek care, further compounding risks for maternal and fetal health. However, in light of the rising syphilis rates in Manitoba, particularly among vulnerable groups, these guidelines may need to be reevaluated. While the first prenatal visit provides an essential opportunity for screening, it may not be sufficient in populations with poor access to healthcare or those who enter care later in their pregnancies. The local epidemiology of syphilis, particularly in Manitoba's Indigenous communities, calls for a reevaluation of screening protocols.

Methodology: This scoping review is conducted using PRISMA protocol. -Search Strategy and Selection Criteria : A systematic search was conducted using PubMed, MeSH (Medical Subject Headings) terms:

Syphilis, Pregnancy, Canada, Manitoba. The search initially identified 97 articles that met the search criteria. -Screening and Data Management: After an initial review, duplicate articles were identified and removed using Rayyan (a web-based tool for systematic review management) resulted in 10 articles being excluded for duplication.

- Selection of Articles Based on Inclusion and Exclusion Criteria: Following the removal of duplicates, the remaining 87 articles were subjected to further screening. Articles (English) were evaluated based on the following Inclusion Criteria: Research focusing on syphilis screening during pregnancy, Studies examining the effectiveness of screening practices or guidelines in Canada or Manitoba, Articles that discuss the impact of syphilis on maternal and fetal health outcomes, Studies investigating barriers to care and access for pregnant individuals, particularly among vulnerable populations. Exclusion Criteria: Articles before 2000, Articles that did not focus specifically on syphilis screening or pregnancy, Studies that did not provide relevant data on syphilis screening practices or outcomes

After applying these criteria, 4 articles were excluded for failing to meet the selection criteria, leaving a final total of 83 articles to be included in the scoping review.

Results: The early results from this ongoing review suggest that enhanced syphilis screening at different points during pregnancy could help improve health outcomes in Manitoba. Specifically, testing should be done: at the first prenatal visit, at 28 weeks of pregnancy, at delivery . This approach would increase the chances of detecting syphilis infections, especially for those who might not attend their first prenatal visit or who get infected later in pregnancy. By testing multiple times, we can catch syphilis earlier, reducing the risk of passing it to the baby and improving the health of both mother and child. The review also highlights the importance of using community-based strategies to help people, especially those from vulnerable groups, get better access to prenatal care. Mobile clinics or outreach services in high-risk communities, such as Indigenous populations or areas with high rates of homelessness; Culturally tailored educational campaigns to raise awareness about the importance of syphilis screening during pregnancy etc. These strategies aim to make healthcare more accessible, especially in places where transportation, distance, or distrust of the healthcare system are major barriers. Moreover, culturally appropriate strategies to improve syphilis screening and treatment in Indigenous communities suggestions included combining traditional health practices with regular medical care to make healthcare more acceptable, building trust by working closely with Indigenous leaders, elders, and healthcare providers. Also creating safe, supportive spaces where Indigenous women can talk about sexual health and reproductive issues without fear of judgment.

Conclusion: The preliminary results of this scoping review suggest that enhanced syphilis screening at multiple time points during pregnancy is crucial for improving maternal and fetal health outcomes in Manitoba. Screening at the first prenatal visit, 28 weeks gestation, and at delivery can help detect syphilis infections earlier, reducing risks such as congenital syphilis and preterm birth. Expanding screening, especially for vulnerable populations like Indigenous peoples, is both a cost-effective and necessary step in reducing syphilis-related pregnancy complications. The findings emphasize the need for community-based, culturally appropriate strategies to increase prenatal care engagement, particularly for groups facing barriers such as stigma and fear of child apprehension. These strategies can improve trust and access to healthcare. As syphilis rates continue to rise in Canada, understanding the drivers behind this trend is critical. Further research is needed to fully understand the evolving syphilis epidemic and its impact in Manitoba. The review will continue to explore the effectiveness of proposed strategies and provide actionable recommendations for improving syphilis screening policies and practices. The rising rates of syphilis among pregnant individuals in Manitoba highlight the urgent need for collaborative action. Healthcare providers, policy makers, community leaders, and public health organizations must work together to improve screening, address barriers, and ensure better health outcomes for mothers and infants.

Maryam S Othman, Dr. Firas Al-Dhafer, Craig Mara

Background: In Canada, there are over 1.6 million children struggling with their mental health. Long wait times, the costs of mental health services, and a limitation in accessing specialized mental healthcare have all been cited as contributing factors to this finding. Initiatives aimed at addressing poor mental health among youths have been implemented by international groups in Australia and the United States of America, however, supports available for rural pediatric patients in Canada are seldom represented in the literature. The purpose of this study was to explore the experiences of these individuals in seeking mental healthcare in rural Canadian communities, with the goal of obtaining a deeper understanding of the needs of these vulnerable populations.

Methodology: The parents and/or caregivers of rural pediatric patients requiring mental healthcare were invited to participate in a needs-assessment survey. Participants were recruited by displaying a QR code with a link to the Qualtrics questionnaire in the waiting room of the supervisor's clinic in Petrolia, Ontario. The survey consisted of 33 questions, and information on participant demographics (age group, occupation, and educational level), household income, community size, and a description of how they obtained mental healthcare for their child were collected. Participants were also given the opportunity to provide feedback and suggestions for improving rural mental healthcare. Data analysis involved selecting the most represented answer for each question. In the case of stratified results, all responses were represented. Furthermore, healthcare providers and mental health institutions were interviewed to better understand the challenges in providing mental healthcare to rural pediatric patients. Participants were interviewed virtually via Zoom.

Results: The parents and/or caregivers of rural pediatric patients requiring mental healthcare were invited to participate in a needs-assessment survey. Participants were recruited by displaying a QR code with a link to the Qualtrics questionnaire in the waiting room of the supervisor's clinic in Petrolia, Ontario. The survey consisted of 33 questions, and information on participant demographics (age group, occupation, and educational level), household income, community size, and a description of how they obtained mental healthcare for their child were collected. Participants were also given the opportunity to provide feedback and suggestions for improving rural mental healthcare. Data analysis involved selecting the most represented answer for each question. In the case of stratified results, all responses were represented. Furthermore, healthcare providers and mental health institutions were interviewed to better understand the challenges in providing mental healthcare to rural pediatric patients. Participants were interviewed virtually via Zoom.

Conclusion: This study identified the need for comprehensive mental health services in rural communities across Canada. According to the survey, participants would benefit from an improvement in local services and reduction in wait times and costs. Next steps involve increasing the sample size and disseminating the survey to participants in rural communities outside of Lambton County.

Zohaib Nadeem, Dr. Denise Jaworsky, Dr. Ian Warbrick

Background: Healthcare disparities in rural and remote regions of British Columbia (BC) are well-documented in the literature. Despite efforts to close that gap, such as rural medical school training streams, healthcare inequities persist. The focus in recent decades has been on addressing the shortage of primary care physicians in rural BC. However, with an aging population and growing complexity of patients, internists play an important part of the modern healthcare system.

Methodology: BC physician data was sourced from BC Ministry of Health Medical Service Plan (MSP) reporting data for the fiscal years 2020/2021, 2021/2022, and 2022/2023. The number of physicians in the following internal medicine specialties were combined as 'Subspecialists': neurology, geriatrics, cardiology, rheumatology, clinical immunology and allergy, respirology, endocrinology, critical care, gastroenterology, nephrology, infectious disease, hematology oncology, and palliative medicine. The number of physicians registered as practicing 'internal medicine' and 'general internal medicine' were combined as 'General Internists'. The number of General Internists and Subspecialists were collectively referred to as 'Internal Medicine Specialists'. Specialists per 100 000 persons were calculated using MSP registrants as a proxy for population. Data was determined for each respective Health Service Delivery Area (HSDA). The following HSDAs were deemed rural regions: East Kootenay, Kootenay Boundary, North Vancouver Island, Northwest, Northern Interior, and Northeast. This was based on a predominance of rural and remote communities as outlined in the BC Rural Practice Subsidiary Agreement, which considers the following criteria: Number of designated specialties within 70km, Number of general practitioners within 35km, Community size, Distance from major medical community, Degree of latitude, Specialist centre, and Location arc. Data for physicians with unknown locality were excluded. Maps displaying physician HSDA distribution were created using QGIS (v.3.34).

Results: 1682 Internal Medicine Specialists were registered in BC overall in 2022/23, with 26% General Internists. Urban regions had more Internal Medicine Specialists per capita compared to rural regions. Vancouver had 76.69 Internal Medicine Specialists and 60.54 Subspecialists per 100 000 persons while the Northeast region had 1.32 Internal Medicine Specialists and 0 Subspecialists per 100 000 persons. For comparison the provincial medians were 29.74 Internal Medicine Specialists and 21.98 Subspecialists per 100 000 persons. Absolute numbers of Internal Medicine Specialists were also greater in urban areas than in rural areas (589 in Vancouver vs. 7 in Northwest and 1 in Northeast). General Internists made up a greater proportion of Internal Medicine Specialists in rural regions (100% in the Northeast and Northwest regions vs. 21% in Vancouver).

Conclusion: Results indicate a disparity in Internal Medicine Specialist distribution across HSDAs in BC with fewer specialists per capita in rural regions. In certain HSDAs a single internist may be providing care to an entire region, exposing a serious risk of service disruption to entire geographical regions in BC. This highlights significant inequities in access to Internal Medicine Specialist care and the need to build programs that support the recruitment and retention of specialists in rural communities. In more rural areas, General Internists make up a greater proportion of internal medicine specialists which underscores the importance of rural generalism, a concept that is frequently discussed in primary care literature. Further research and policy development is needed better support the growing healthcare needs of rural BC communities where Internal Medicine specialists are less readily available.

RURAL CLINICIAN INSIGHT ON CHILDHOOD FARM INJURIES

SRPC Research Ref: Poster - 308

Ms. Mindy Baroody, Ms. Alyssa Palmateer, Dr. William Pickett

Background: In the past 30 years, more than 450 children have been killed on farms, and thousands more have been significantly injured. Public health initiatives addressing this concern have been rejected by the agricultural community, likely because they do not align with their family values and customs.

Methodology: To gain insights from rural clinicians, we will conduct semi-structured interviews with 3 different physicians from Tweed and the Niagara region. We are initially interviewing three rural healthcare providers as a pilot: this will allow us to test and develop an analytic framework going forward. In a future larger project, we will expand to interview a range of clinical and allied health professional disciplines, including emergency and family physicians, rural nurses, and paramedics. The study participants will be individually interviewed in a semi-structured format. Five questions will be created for the questionnaire script, covering the themes of rural practice, child farmplace injuries, social norms around farm practices, and possible interventions for the community. Once the interviews are completed, they will be transcribed and de-identified. To analyze the transcripts, we will follow an interpretive description approach: Open coding: identifying key concepts and generating initial themes. Examining the transcript line-by-line, and generating a code from the data. Establishing connections between different ideas, identifying any patterns or themes. As these key themes begin to take shape, we will continue to collect data, analyze, and revise our code, and prominent concepts will surface. We will deploy a mixed coding approach, using both deductive and inductive coding: this will enable us to address our pre-formulated ideas based on previous research in childhood farm injuries, while also revealing any new concepts uncovered during the interviews.

The theme identification and data coding will be independently carried out by the two researchers. Consensus regarding the coding will be reached via regular discussions between the researchers, and disputes that cannot be resolved in this manner will be resolved by a third party. Using our initial code generation, we can develop a coding template that can be applied to subsequent data. By maintaining a cyclical process in the steps of data collection and analysis, we can continue to refine our themes and bring new, valuable ideas to light.

Results: Through discussions with rural healthcare providers, we hope to learn what approaches to keeping children safe from physical trauma on farm sites have been accepted (and on the other hand, resisted) during conversations with farm parents regarding safety.

Conclusion: We expect that this project will shed light on the clinician response to farm injuries in children. The results of this pilot study could lead to the creation of an analytical framework, informing additional interviews with clinicians. Then, the insights will be used to create practical steps for prevention of child farm injuries. By approaching the first line of defense against major injuries, local clinicians, we aim to advance knowledge in this area and inform evidence-based recommendations for prevention techniques that can work with these populations.

THE NATURE OF SCHOLARLY PROJECTS WITH A RURAL COMMUNITY FOCUS COMPLETED BY FAMILY MEDICINE RESIDENTS AT DALHOUSIE UNIVERSITY

SRPC Research Ref: Poster - 309

Stephanie Welton, Jim Thompson, Julie Easley, Sarah Lespérance

Background: Research in the rural primary care setting is under-resourced and under-described. All family medicine residents complete a scholarly project during their training. At Dalhousie University this can follow one of six project types, original research, literature appraisal, position paper, clinical education tool, medical education tool, and health humanities, on any topic relevant to family medicine. This study is a content analysis of projects that focused on rural primary care settings.

Methodology: Using content analysis, pairs of authors categorized each project in five domains: practice setting, practice activity, social determinants of health, life course, and community focus, based on words used in the title and abstract. Community focus indicated whether the project addressed care in communities with rural, regional and/or tertiary care characteristics. For rural communities, we used the SRPC definition (population less than 10,000 and no local specialists) or use of the word rural in the title or abstract. Regional communities had facilities with Level 2 or 3 trauma care designations, and tertiary had Level 1.

Results: 79 of the 363 projects were categorized to include a rural (40) or regional (39) community focus, 19 were exclusively tertiary, and 284 could not be specified. Several projects included both rural and regional community focus (19) and were included in both groups during analysis. The most common project type in the rural and regional groups was original research. The range of topics was very wide. A top keyword in both groups was "access to care". Nearly all projects addressed clinical topics, but considerably higher proportions also addressed non-clinical topics in projects with a rural (95%) or regional (82%) community focus. The full results will be available for presentation at the Rural and Remote Medicine Course.

Conclusion: In this study, we describe the rural scholarly topics of interest to family physicians during their residency training, and discuss the significance of these findings as they pertain to rural healthcare research. Residents' scholarly projects with a rural community focus addressed a wide variety of clinical and non-clinical topics. The most common project type was original research. This analysis aims to support the development of rural healthcare research by showcasing the existing variety of works and identifying potential gaps or areas for further support.

**TRANSLATING EMERGENCY KNOWLEDGE FOR KIDS
(TREKK): CO-DEVELOPMENT OF RESOURCES WITH
EMERGENCY HEALTHCARE PROVIDERS**
SRPC Research Ref: Poster - 310

Megan Bale-Nick, Dr. Lisa Knisley, Dr. Terry Klassen

Background: Across Canada, many sick and injured children receive care in emergency departments outside of children's hospitals, where accessing the right resources and training can be challenging. This knowledge gap inspired the launch of Translating Emergency Knowledge for Kids (TREKK; trekk.ca), in 2011. TREKK is a national non-profit network dedicated to improving emergency care for children. TREKK synthesizes current pediatric knowledge, co-develops practical resources, and mobilizes them to healthcare providers (HCPs) in emergency departments across Canada.

Methodology: A rigorous and iterative knowledge translation process is followed to co-develop HCP resources. TREKK brings together evidence synthesis experts, leading child health researchers, communications specialists, parents and youth advisors, and clinicians across various specialties to implement the following steps:

Topic and Content Advisor Selection: Topics are identified through consultations with emergency clinicians, experts, and the public, focusing on pediatric emergency medicine gaps. Content advisors are pediatric researchers identified by the TREKK Steering Committee based on their experience dealing with and researching specific conditions. Content Advisors are at times recommended by existing contacts and collaborators, or may approach us directly with an interest in developing resources.

Knowledge Synthesis: Led by a knowledge synthesis expert at Alberta Research Centre for Health Evidence (ARCHE) and content advisor

team, evidence is synthesized and collated into a list that meets emergency clinicians' information needs.

Resource Development: Coordinated by the Knowledge Broker, content advisors create concise information summaries and practical, clinical tools based on synthesized evidence.

Review: Resources undergo rigorous review by a national Editorial Committee and Parent and Youth Advisors.

Approval: Final approval is granted by a national Steering Committee.

French Translation: Resources are professionally translated by a medical translator in collaboration with French clinical experts.

Dissemination: The communications coordinator and knowledge broker disseminate resources through various channels to reach the target audience.

Two-Year Update: Resources undergo a comprehensive review every two years to maintain relevance.

Results: TREKK has co-created 105 HCP resources covering 40 topics, with close to 100 committee members and content advisors. These resources have been downloaded from trekk.ca over 165,000 times. In 2024, the top 10 downloaded HCP resources in 2023/24 were the Diabetic Ketoacidosis (DKA) Algorithm and BLR; Asthma Algorithm, BLR, and Order Set; Croup BLR; Bronchiolitis BLR; Fever BLR; Status Epilepticus Algorithm; and Acute Otitis Media BLR.

Conclusion: Developing pediatric emergency healthcare resources tailored specifically for Canadian HCPs at a national level fosters an efficient resource creation process and ensures that HCPs are equipped with the most up-to-date knowledge to care for sick and injured children. TREKK will continue to monitor and update resources to ensure they meet the evolving needs of emergency HCPs across Canada.

ORAL PRESENTATION

The oral research sessions bring together researchers who are exploring key challenges and innovations in rural and remote healthcare. Topics range from emergency care and chronic disease management to medical education, AI integration, and physician recruitment. Presentations will highlight strategies to improve patient outcomes, enhance training for medical learners, and strengthen healthcare delivery in underserved regions. With insights from Canada, New Zealand, and beyond, this session will examine barriers to equitable care, community-driven health models, and ways to build rural health research capacity. Whether addressing frostbite treatment, rural obstetrics, diabetes care, or planetary health education, these studies offer valuable perspectives on improving healthcare access and delivery. Join us to explore new approaches and solutions shaping the future of rural and remote medicine.

Group 1: Thursday, April 24, from 11:30 to 12:30, Session 124.

Group 2: Friday, April 25, from 9:10 to 10:10, Session 224.

Group 3: Friday, April 25, from 13:30 to 14:30, Session 245.

Group 4: Saturday, April 26, from 9:10 to 10:10, Session 324.

OPTIMIZING EQUITABLE CANCER DIAGNOSES IN CANADA

SRPC Research Ref: Group 1 - 401

Dr. Martin Dawes, M Audoin; K Barnard; L Binder; A Chambers; M Elias; P Holmes-Rodman; F Horne; R Manion; J Pelletier; J Rayner; A Rosvold; T Sahay; A Scali; Dr. M Smylie; L Stephenson; R Turner; E Villalba; S Wait; S Wertheimer

Background: Delays in cancer treatment are related to increased mortality for seven cancer types, with a four-week delay being associated with a 6-8% increased chance of death (Hanna et al., 2020). Individuals with intersectional identities face more obstacles to cancer care (Kelly-Brown et al., 2022), resulting in diagnostic delays, decreased quality of life, reduced survival and higher costs to the healthcare system (Botey et al., 2021).

Methodology: - Structured literature review

- 30 qualitative interviews with cancer survivors
- Survey of relevant healthcare providers across Canada
- Two days of roundtables with 25 structurally underserved community members, including First Nations and Métis, and their primary healthcare providers

Results: ACC developed infographics representing the non-linear, burdensome, and inequitable “Current State of Cancer Diagnosis in Canada” and an optimized Future State, with three different phases within the diagnostic process and seven outcomes patients are trying to achieve.

Conclusion: This presentation will share the current barriers and inefficiencies to achieving equitable, swift, accurate, and appropriately delivered cancer diagnoses across Canada, including those affecting rural and remote areas. It will also show what outcomes patients are trying to achieve and what an equitable future state looks like. Participants will be asked to share any innovations and other opportunities to achieving earlier cancer diagnoses for rural and remote community members.

PATIENT-DESCRIBED BARRIERS AND FACILITATORS TO POST-STROKE CARE IN RURAL NORTHERN ALBERTA

SRPC Research Ref: Group 1 - 402

Heather A. Tomlinson, Alicia Turenne; Evelyn Golby; Elysia Parker; Dr. Anmol Shahid; Dr. Christiane Job McIntosh

Background: Disparities in post-stroke care between rural versus urban areas have been noted by patients, healthcare providers, and researchers around the world. However, most research on the topic addresses experiences of American and Australian stroke survivors, with very few Canadian perspectives available. This leaves a knowledge gap regarding the experiences of stroke survivors living in rural and remote settings in Canada. Supported by a program (Research Challenge, Alberta Health Services) aimed at encouraging front line healthcare workers to conduct research, our multidisciplinary team of rural practitioners (palliative care nurse, occupational therapist, recreation therapist, and speech-language pathologist) conducted a qualitative study that investigated experiences of stroke survivors in rural northern Alberta as they navigated the healthcare system.

Methodology: The study was informed by a grounded theory approach. Drawing on previous qualitative research on this topic, our team developed a semi-structured interview guide designed to explore the experiences of rural stroke survivors. Purposive sampling was used for recruitment of participants based on specific inclusion criteria: received all stroke care in Alberta, were able to communicate in English, resided in northern Alberta, and had a stroke within the last five years. Six stroke survivors were contacted and interviewed (in-person or virtual). Data was collected until data saturation was reached. The team's consensus was that no new themes emerged after the first six interviews, therefore no further interviews were conducted. Thematic analysis was completed on interview transcripts to build codes around converging themes which the team discussed until consensus was achieved.

Results: Four themes emerged from interview data: access to stroke services, social support, transitions in care, and mental health.

Stroke survivors identified several barriers on their post-stroke journey through the healthcare system including a) limitations in transportation (ambulance services were perceived as unreliable, uncomfortable, and inefficient), b) cost and time needed for follow-up appointments (returning to the urban centre for follow-up appointments necessitated a significant investment of additional time and funds), c) Delays in follow-up care such as rehabilitation (due to miscommunication and bed pressures which decreased prompt access to services). Additionally, patients felt that Covid-19 restrictions further impeded social support. Finally, mental health was negatively affected by anxiety, role changes and perceptions of discrimination. The facilitators identified by stroke survivors included access to publicly funded homecare and rehabilitation services (decreased financial burden) and local healthcare providers (increased patient comfort). Facilitators also

included access to a) support and advocacy from family and friends, b) virtual technology (reliable internet eased access to rehabilitation and support groups) and c) reliable transportation for transitioning between care facilities or attending appointments.

Our participants shared actionable recommendations to improve the health journeys for rural stroke survivors. These recommendations focused on tackling geographic barriers to bridge service gaps and connect stroke survivors to critical social support through 1) increasing capacity for local healthcare professionals to provide post-stroke services, and 2) developing or improving access to virtual care services.

Conclusion: Our study participants believed that improving access to local health services, using virtual platforms to bridge service gaps, and reducing service disruptions and timely access to rehabilitation services could be important ways to improve the lived experience of stroke survivors in rural Alberta. Adopting these proposed solutions will begin to address the rural-urban disparity and promote a smoother journey for rural stroke survivors and their families. As there are few studies that have explored the perspectives of stroke survivors in rural northern Alberta, health care decision makers can use our study findings to improve the stroke survivor's journey and experiences as they navigate through the healthcare system.

THE BROSELOW TAPE ISN'T PULLING ITS WEIGHT: A REVIEW OF THE LITERATURE FROM 2017 TO PRESENT SRPC Research Ref: Group 1 - 403

Caitlin Bittman, Georgia Powell, Cynthia Kwan, Ilana Bank

Background: Precise weight-based dosing is essential for optimal and safe medication administration in pediatric emergency care. However, obtaining an accurate scale weight during emergencies is often impractical. Clinicians must therefore rely on other rapid weight estimation methods. The Broselow tape (BT) is a widely used tool for pediatric weight estimation, and its use is considered standard of care. In 2017, a systematic review by Wells et al. found that the Broselow tape estimated weight within 10% of actual weight in only 53.7% of cases across 58 studies. Newer methods using dual anthropometric inputs, including the Mercy method and PAWPER tape, consistently outperformed the Broselow tape in accuracy but were less extensively studied. Since 2017, numerous studies have been published, including direct comparisons to the Broselow tape. In addition, a new edition of the Broselow tape was released in 2019. This updated review synthesizes recent data to evaluate the accuracy of the Broselow tape and compare it with the Mercy method and PAWPER tape.

Methodology: A PubMed search (2017–present) using the term “Broselow” yielded 79 results. Studies were evaluated by a single investigator (CB). Inclusion criteria required new research published as full text assessing the Broselow tape's accuracy, either independently or in comparison with other methods. Sixteen studies were excluded at screening, one was excluded due to difficulties retrieving the article in English, and an additional 29 studies were excluded after full text review. Articles were excluded if they were not new research or full-text publications (e.g., letters to the editor or abstract only), if the reported data was incompatible with the accuracy metrics of interest, if they were included in the 2017 Wells et. al review, or if they were not on the topic of interest. A total of 33 studies were included in this literature review. Accuracy metrics collected include the percentage of patients with estimated weight within 10% (PW10) and 20% (PW20) of actual weight, mean percentage error (MPE) of estimated weight from actual weight, and mean error (ME) in kilograms. Accuracy data from studies directly comparing the Broselow tape to PAWPER tape and/or Mercy method were also collected.

Results: The reviewed articles (N= 33, n= 2,004,889) indicate that the PAWPER tape and Mercy method continue to outperform the Broselow tape across most patient groups and populations, in particular those at

the extremes of age and body habitus. The Broselow tape achieved PW10 accuracy ranging from 39.8% to 69.9% across studies, with substantial variability due to differences in study populations and methodologies. In comparison, the PAWPER tape PW10 ranged from 61.6% to 87.5%, and Mercy PW10 ranged from 44.9% to 79.8%, with only two instances of PW10 exceeding 65%. Still, Mercy method demonstrated higher accuracy than Broselow, albeit lower than PAWPER.

Conclusion: This updated review underscores the limitations of the Broselow tape as a weight estimation tool, particularly in rural emergency settings where pediatric emergencies are infrequent, and clinician proficiency in pediatric resuscitation is harder to maintain. PAWPER tape and Mercy method, which incorporate dual anthropometric measurements, provide superior accuracy without significantly increasing complexity or cost. For rural clinicians facing additional challenges managing these situations, the Broselow tape has become an outdated tool. Adopting more accurate yet practical tools like PAWPER or Mercy could enhance pediatric emergency care and medication safety. This review supports updating clinical guidelines and promoting evidence-based practices to better equip rural healthcare providers in pediatric emergency care.

UNDERSTANDING FROSTBITE PRESENTATION AND CARE IN ONTARIO 2010-2018 SRPC Research Ref: Group 1 - 404

Dr. Cait Champion, Yousuf Ahmed MD, Malcolm Davidson BScH, MD, Dr. Alex Poole MD FRCSC FACS, Josianne Gautier B.Sc.Pharm, M.Sc. Pharm, Sarvesh Logsetty, MD, FRCPS, Ian MacNairn PhD, MD, Lisa Allen PhD, Haley Golding MSc, Magdalena Partyka-Sitnik BA,

Background: Frostbite is a cold weather injury presenting a significant risk of functional morbidity due to amputation. There is a paucity of studies investigating the epidemiology and regional distribution of frostbite.

Methodology: Data was collected from the Institute of Clinical and Evaluative Sciences for adults over 18 years of age presenting to an Ontario emergency department from January 1, 2010 to December 31, 2018. Patients were followed for 30-day readmission and additional treatments within 180 days of presentation.

Results: 5311 patients presented with unique episodes of frostbite in Ontario. Most cases were classified as unspecified (N= 3 775) or superficial (N= 1 379) frostbite of the extremities, primarily in male patients with mean age 40 and few comorbidities. Cases were seen across all income and marginalization quintiles, with a trend towards more cases in greater marginalization indices and a higher proportion of homelessness seen in deep frostbite presentations (10%) compared to superficial (4.4%) or unspecified (5.6%). Most cases (75%) presented to small or medium size non-academic hospitals.

Conclusion: Frostbite patients presented to small and medium non-academic hospitals with increased cases during extreme cold weather. While there was a trend towards more cases in lower income and marginalized populations, frostbite impacted all segments of society. Frostbite education initiatives involving patients and providers have the potential to positively impact patient outcomes.

A PEER-LED RURAL DAY: AN INVITATION TO EXPERIENCE THE COMMUNITY

SRPC Research Ref: Group 2 - 405

Alyssa Groves, Grace Perez, Aaron Johnston

Background: Medical student interest in rural careers continues to trail behind the workforce needs of rural Canada. In this project, a medical student with a rural background organized and led a rural excursion for fellow students in peer's own community.

Methodology: The student peer organized a day excursion to their community of origin. The organization of the day-long experience included a tour of a small-town hospital, meeting rural physicians and members of the community, and learning about the lives of farmers and what rural living looks like. At the town hospital, students went on a hospital tour and learned about procedural skills from local doctors and nurses (e.g., suturing, casting, intubation, IV starts, running codes, and laboratory skills). The hospital's clinical nurse educator then ran an interactive code simulation with all the students. Following the clinical learning sessions, students enjoyed lunch and met community members, including the peer's friends and family. After the events at the hospital, the students were taken to the peer's family farm where they were given a tour of the farm, taught about agriculture, introduced to the farm animals, and exposed to various agriculture technologies. The students then listened to a panel focused on understanding rural communities and the people who live in them, followed by dinner at the farm. To gather data, we used an online post-event survey that asked questions about the familiarity with rural medicine and the level of trust students placed in various sources of information about rural life and rural medical practice.

Results: Of the students, 61% were not familiar with rural medicine. For information about rural life and medical practice, participants gave the highest trustworthiness scores to rural-origin peers. Overall students reported a positive learning experience.

Conclusion: Our data confirms that most medical students are from urban areas and lack familiarity with rural living. The participants indicated that the rural day experience was highly positive. Results also indicated that medical students have more trust in their rural-origin peers about information regarding rural life and medical practice. When promoting rural education and careers, we suggest that medical schools work with rural-origin students to maximize engagement. Medical schools can lend expertise in logistics, organization, and resources while rural origin students lend expertise in lived experience. This type of cooperative experience and messaging may be considered more trustworthy than traditional sources.

AI SCRIBES IN THE HANDS OF MEDICAL LEARNERS: PRECEPTOR PERSPECTIVES AND EDUCATIONAL IMPACTS

SRPC Research Ref: Group 2 - 406

Dr. Martin Tieu

Background: The use of Artificial Intelligence (AI) scribes to assist with clinical documentation is evolving rapidly. While literature suggests broad benefits for healthcare professionals, research specific to medical learners and their development in clinical documentation is lacking. This leaves educational institutions without guidance on AI scribe use by learners.

Methodology: Family Medicine preceptors from Alberta and the Northwest Territories, affiliated with the University of Alberta, were surveyed anonymously in 2024. The survey assessed their interest in and comfort with using AI scribes in clinical practice, personally and for residents. Data was analyzed using descriptive statistics and correlation analysis. Approved by UofA REB Pro000145033.

Results: Of the 948 preceptors contacted, 79 (8.3%) responded. Respondents included 66 urban-based and 13 rural/remote preceptors, with 70% under age 45 and 61% compensated in a fee-for-service model. 40 (51%) of the respondents were female, and 39 (49%) were male respondents. AI scribes were used by 17% of urban preceptors and 31% of rural/remote preceptors. The use of AI was highest among the 35-44 age group (26%), followed by 15% in the 25-34 age group. Additionally, there were no reports of AI use in the 55+ age group. Key perceived benefits for residents included enhanced focus on patients, time savings, and improved accuracy. Challenges included the need for residents to understand non-AI methods, difficulties in competency assessments, and the need for policies on AI use. Comfort with allowing residents to use AI scribes was neutral, with a median rating of 4 on a 1-7 scale. A positive correlation ($r = 0.63$) was found between preceptors' own use and support for resident use.

Conclusion: This study highlights the emerging use of AI scribes among preceptors, especially those under 55, but reveals hesitancy about resident use. Future adoption will require further understanding and exploration of learner education and competency assessment in the context of AI scribe use, as well as creation of policies to guide learners and educators.

DEVELOPING A RURAL AND INDIGENOUS FOCUSED BLENDED CLERKSHIP: THE NORTHERN REGIONAL INTEGRATED CLERKSHIP

SRPC Research Ref: Group 2 - 407

Sean B Maurice

Background: The Northern Medical Program (NMP) is developing a new blended clerkship, the Northern Regional Integrated Clerkship (NRIC), in response to the UBC MD Undergraduate Program's (MDUP) social accountability mandate which is now an accreditation requirement (1). A recent update to the MDUP social accountability statement emphasizes that rural and Indigenous peoples are priority populations (2). The NMP is the most rural of the sites within the provincial (distributed) MDUP, and has a higher per capita population of Indigenous peoples within its region.

Methodology: To ensure the success of this new model we've conducted extensive community consultation, and we're studying the learning and community immersion experiences of the first pilot of the NRIC with the support of the ESU, as well as research into the students' experiences of learning how to navigate overlapping relationships.

Results: A lack of skill in setting boundaries within overlapping relationships appears to contribute to retention issues (3). Through the development and implementation of NRIC, we hope to produce more physicians with the skills and interest to succeed as rural generalists, serving rural and Indigenous populations in the north. In addition, we hope to gain insight into how to best prepare our learners for success in such experiences.

PLANETARY HEALTH ROUNDS: A NOVEL APPROACH FOR EMBEDDING PLANETARY HEALTH EDUCATION INTO UNDERGRADUATE AND POST-GRADUATE MEDICAL CURRICULA

SRPC Research Ref: Group 2 - 408

Loukman Ghouti, Dr. Tajdeep Brar, Dr. Jordana Compagnone, Dr. Maryam Yunus, Dr. Sanjana Sudershan

Background: Climate change is recognized as a significant threat to public health, with the healthcare sector in high-income countries like Canada and the United States contributing notably to greenhouse gas (GHG) emissions. The need for educational tools that incorporate healthcare sustainability into medical training is widely acknowledged.

Methodology: The Planetary Health Rounds used the open-source HealthcareLCA Database, which contains data on GHG emissions linked to common healthcare practices. During these educational sessions, medical learners estimated the GHG emissions from a patient's admission and discussed strategies to mitigate these emissions as part of their end-of-rotation teaching.

Results: Despite some challenges such as limited participation, scheduling conflicts, insufficient emissions data specific to internal medicine, and issues with data generalizability and access to planetary-health experts, the initiative was well-received by trainee physicians.

Conclusion: The Planetary Health Rounds at Dalhousie University represent a novel approach to integrating climate change and healthcare sustainability education into postgraduate medical curricula, showing promise despite the encountered challenges.

THE EFFICACY AND POTENTIAL FOR RETURN OF SERVICE BY CANADIAN MEDICAL GRADUATES TO IMPROVE RURAL HEALTH SERVICE DELIVERY.

SRPC Research Ref: Group 2 - 409

Haedan Turner, Dr. Stefan Grzybowski

Background: International medical graduates (IMGs) represent roughly 25% of the residents entering family medicine in Canada (1). For some provinces, IMGs in practice contribute substantially to the current physician workforce 46% in Saskatchewan and 38% in Newfoundland and Labrador (1,2). In the current healthcare climate, physician shortages are unlikely to be entirely alleviated by contributions from IMG's. Yet there is a reliance, especially in rural medicine on IMGs for their return of service. Medical licensure, be it provisional or full, from the Medical Council of Canada (MCC), is difficult to attain in Canada for IMGs with programs lacking postgraduate residency training that is recognized as being up to Canadian standards. This results in long periods of remedial training or service as clinical assistants to become eligible for licensure to practice in Canada. This endeavor is costly, lengthy and in some cases an insurmountable task (3). This licensing is also specific to the province; therefore, an IMG may not qualify to practice in multiple different provinces (3). A recruitment taskforce in Australia for rural physicians identified additional factors that make effective IMG recruitment and retention to rural areas challenging include newly working in locations with a high turnover rate of physicians, lengthy physician vacancies, demonstrated need for broad scope of practice with advanced practice skills, high indigenous populations, and extreme climate changes (4). In numerous resource limited countries, a compulsory service programme (CSP) of domestically trained students for 1-3 years helps to address shortages in rural medicine. It is a requirement of every single domestically trained graduate regardless of career choice and specialty (5). CSP's are maintained because they have proven over time to radically increased health service delivery and improved physician recruitment, and retention of physicians existing in low resource rural environments (6). A

return of service for Canadian Medical Graduates can be a tool for social justice. Health authorities can wield this instrument of health equity and social advocacy to direct and augment health services to geographical areas that are not well served, and in communities that are not favoured by market forces and health worker preferences (6,7).

Methodology: In the fall and during a research block for Foundations of Scholarship (FLEX) dedicated research time, with the assistance of a UBC Health Science librarian and the BC Rural Health Research Network, search terms were used to generate the literature for this review with the electronic database PubMed. Inclusion criteria were published in English between the years 2000-current day. Articles were deemed relevant to this search if they discussed return of service, compulsory service rural medicine, health service, human resources and rural physicians. In addition, government databases which offer current domestic return of service papers and news articles were considered as Grey Literature. Other databases such as Grey Matters and Google Scholar databases were accessed. Throughout this process to clarify certain domestic return of service strategies informal pilot interviews with rural doctors from across British Columbia were conducted to gather more information on key factors related to the efficacy of return of service for international medical graduates for health service delivery, recruitment and retention. This project is investigating the primary literature, and grey literature to establish the efficacy of a return of service strategy for Canadian Medical Graduates.

Results: In Canada there exist very few return of service programs outside of the generous opportunities which lie with the Canadian Armed Forces (8). In British Columbia like many other provinces there are a broad scope of return of service programs in primary care as well as specialized positions. In primary care the majority of return of service programs target international medical graduates through the CaRMS process or international trained physicians through the PRA process (9,10). For specialty positions there is a re-entry stream for health authorities who have identified a need, and 2025 is piloting a competitive specialty stream which will be available to both IMG and CMG applicants (11,12). Medical Schools across Canada are preparing to opening up or expanding their number of eligible seats (13). With this increase in number of trainees there is an increase strain on the medical system to train new medical students and residents. Research from Asghari et al, has shown that longer exposures to rural medicine has improved medical competence with the broad scope of practice in rural medicine (14). These longer exposures have also been associated with improved recruitment, longer health service delivery, and retention of doctors in rural areas (15). There is however an increasingly worsening ability to provide training opportunities for residents and medical students in rural setting (16,17). Changes need to be made to our medical system to help support our rural learners and educators to withstand this new influx of learners (18). Return of service is an opportunity to foster an appreciation for rural service delivery. Throughout this process connections and relationships between urban and rural centers can develop and strengthen long after the completion of the program. Many options and potential for return of service exist and thrive outside of Canada (6). This could include virtual health services, such as the Real Time Virtual Support System which has opened in BC (19). Academic institutions are consistently in search of staff willing to provide instruction for preclinical and clinical duties (16,17,20). Locums' services are consistently looking for physicians to provide much needed service relief for physicians in rural areas who may require aid for vacation, continuing medical education, childbearing, and other periods of leave (21,22). This presentation will discuss the rationale for a return of service for Canadian medical graduates (CMGs) for one year. In addition to the aforementioned points, it is prudent to consider that the education of students in medicine in Canada is heavily subsidized by the taxpayer. The government of Quebec has quoted their contributions to medical education ranging from 435,000 – 790,000 (23). While CSP in Canada may not guarantee the development of a permanent workforce it will contribute to our nation's plan for health workforce capacity development, distribution and retention in rural medicine.

ENHANCING ACCESS TO FIRST-TIME HIV AND SYPHILIS TESTING: THE ROLE OF POINT-OF-CARE TESTING IN HARD-TO-REACH POPULATIONS IN SASKATCHEWAN

SRPC Research Ref: Group 3 - 410

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Background: HIV and syphilis are significant public health concerns in Saskatchewan, with epidemic rates in recent years. Travel and transportation challenges in rural and Indigenous communities results in delays in diagnosis, treatment, and follow-up care contributing to ongoing transmission and worse health outcomes. This is most pronounced for those with socioeconomic challenges. Point-of-care (POC) testing is a promising solution to these barriers. This study aimed to evaluate the effectiveness of POC testing and treatment for HIV and syphilis among hard-to-reach populations in Saskatchewan, focusing on individuals not previously tested.

Methodology: Preliminary data from February 2023 and November 2024 evaluated 1,760 participants enrolled in the study. Participants were offered point-of-care (POC) testing for HIV and/or syphilis at various community-based locations across Saskatchewan. A total of 25 sites were enrolled and were distributed among both urban and rural/remote areas. There were 10 urban sites in Regina and Saskatoon. These included healthcare clinics/facilities (4), community based organizations (5) and pharmacies (1). Outside of the 2 tertiary care cities, testing was done in 15 sites. These included Indigenous communities (12) and rural towns (3).

Participants were asked to self-report their previous testing history. Those who had not previously been tested for HIV were classified as first-time HIV testers, while those who had not been tested for syphilis were categorized as first-time syphilis testers. Sociodemographic data, including age, sex, and geographic location, was collected. Individuals were then offered POC testing for HIV, syphilis or both. In addition, standard serology was drawn and tested for HIV and syphilis as per provincial guidelines.

Results: Preliminary analysis revealed a total of 1,353 HIV POC tests conducted. Distribution by sex was: 671 tests (49.59%) among females, 679 tests (50.18%) among males, and 3 tests (0.22%) among individuals identifying as other. The mean age of participants was 39.51 years (SD: 0.36 years).

Of these, 537 POC tests were conducted in rural and remote areas. The sex distribution was: 291 tests (54.19%) among females, 243 tests (45.25%) among males, and 3 tests (0.56%) among individuals identifying as other. The mean age in rural and remote areas was 39.15 years (SD: 0.65 years). In urban settings, 816 POC tests for HIV were conducted. The sex distribution was: 380 tests (46.57%) among females, 436 tests (53.43%) among males. The mean age in urban areas was 39.74 years (SD: 0.42 years). In rural and remote areas, 18.62% (95% CI: 15.55% to 22.14%) of HIV POC tests were performed on individuals who had never been tested before, compared to 10.66% (95% CI: 8.72% to 12.97%) in urban areas. This difference was statistically significant, with an odds ratio (OR) of 1.92 (95% CI: 1.41 to 2.62).

For syphilis, a total of 1,745 POC tests were conducted. The sex distribution was: 874 tests (50.09%) among females, 867 tests (49.68%) among males, and 4 tests (0.23%) among individuals identifying as other. The mean age for syphilis testing was 39.25 years (SD: 0.32 years). In rural and remote areas, 751 POC tests for syphilis were conducted. The sex distribution was: 398 tests (53.00%) among females, 350 tests (46.60%) among males, and 3 tests (0.40%) among individuals identifying as other. The mean age in rural and remote

areas was 39.40 years (SD: 0.52 years). In urban areas, 994 POC tests for syphilis were conducted. The sex distribution was: 476 tests (47.89%) among females, 517 tests (52.01%) among males, and 1 test (0.10%) among an individual identifying as other. The mean age in urban settings was 39.14 years (SD: 0.39 years). Of the syphilis POC tests in rural and remote areas, 16.64% (95% CI: 14.15% to 19.48%) were conducted among first-time testers, while 19.72% (95% CI: 17.36% to 22.31%) of tests in urban settings were among first-time testers. However, the difference between rural and urban settings for syphilis testing was not statistically significant (OR: 0.81, 95% CI: 0.64 to 1.04).

Conclusion: The preliminary findings from this study highlight how POC testing can be implemented broadly to address HIV and syphilis, in both urban, Indigenous and rural community settings. Nearly twice as many individuals in rural areas received their first HIV test through POC testing compared to urban sites suggesting that POC testing is particularly effective in rural areas. Familiar and trusted community environments reduces obstacles such as stigma, mistrust of healthcare systems, or the logistical challenges of traveling. While POC testing remained effective in both rural and urban settings, there was no significant difference between the two settings. The reasons for this are unclear but may relate to reduced stigma of syphilis compared to HIV. The POC demographics were consistent and broadly applicable across Saskatchewan. This indicates the approach used in this study is likely to be broadly applicable in reaching targeted populations and POC is broadly acceptable. Ultimately, these preliminary results suggest that POC testing can significantly improve access to HIV and syphilis testing, especially for first-time testers in rural and remote areas.

PREDICTORS INFLUENCING RURAL OBSTETRIC CLINICIANS' DECISIONS ON SCREENING FOR GESTATIONAL DIABETES: A FACTORIAL SURVEY

SRPC Research Ref: Group 3 - 411

Andrew Kirke, Julia Marley, David Atkinson, Craig Sinclair

Background: Universal screening of pregnant women with the Oral Glucose Tolerance Test OGTT is recommended for detecting Gestational Diabetes Mellitus GDM in Australia. (1) Despite this, in rural Western Australia OGTT completion is low, 50% (range 29-72%). (2)

Methodology: Midwives and obstetric doctors working in rural Western Australia were surveyed with an experimental vignette study with randomly manipulated factors believed to influence the completion of the OGTT. Patient level factors included age, ethnicity, body mass index, nausea and vomiting NV, childcare obligations, family history, and adverse health beliefs. Participants were surveyed for demographic data including professional category, years of experience, remoteness of work location, hospital based clinics and primary care based clinics. Seventy six clinicians were recruited, completing 654 vignettes, (mean 8.6 range 1-10). Participants rated how likely they were to request an OGTT, how likely the patient was to complete the OGTT and high likely they were to request an alternate test to the OGTT to screen for GDM.

Results: Participants were highly likely to request the OGTT mean 86.3 (range 0-100). Older patients were thought more likely to complete the OGTT, while patients of non-Caucasian ethnicity, NV, childcare obligations or adverse health beliefs were less likely to complete the OGTT. Clinicians were more likely to request alternative tests to the OGTT for patients of non-Caucasian ethnicity, with NV, or holding adverse health beliefs. Participant demographic factors were not significant in predicting patients completing the OGTT or the request of alternative tests.

Conclusion: Rural obstetric clinicians were highly likely to request the OGTT however patient factors were significant in influencing the clinicians' decision making process. This correlates with real world experience of the poor completion rate of the OGTT as a universal screening test for GDM in rural populations.

RETAINING FAMILY PHYSICIANS IN COMPREHENSIVE PRIMARY CARE: A QUALITATIVE STUDY.

SRPC Research Ref: Group 3 - 412

Wei-Hsi Pang, Colleen Grady DBA, Han Han, PhD

Background: There is a significant shortfall of family physicians across Canada with over 1 in 5 Canadians without a family doctor or any access to primary care. This shortage affects all provinces and territories in both rural and urban areas. Practising family physicians increasingly deciding to cut back or to stop providing primary care are considered to be one of the contributors to this shortage. So far, a lot of research and resources have focused on family physician recruitment. There is a dearth of knowledge on effective strategies to retain family physicians. Improving retention of family physicians is an important step in protecting access to primary care in Canada.

Methodology: This was phenomenological research using semi-structured interviews. Purposive and snowball sampling were used to identify Ontario family physicians who had provided comprehensive care within the last 10 years and who had retired early, moved to focused practice, or pivoted to other positions within the health care system. The interview focused on the reasons behind their decision and their perspectives on policies and / or strategies that could foster retention. Both deductive and inductive analyses were used to identify themes.

Results: Twelve family physicians were interviewed. 50% previously had rosters between 750-1250 patients with the rest split equally

between smaller and larger rosters. There was also an equal distribution between family physicians in early career (0-15 years), mid-career (16-25 years), and late career (26+ years). Four main themes were identified: 1. Financial pressures are numerous and make FM unsustainable as a career, 2. Systemic issues must be addressed, 3. Administrative burden is overwhelming, 4. Lack of support of family medicine.

Conclusion: Recruiting new family physicians is not enough to improve Canadians access to primary care. There are significant problems that are forcing family physicians providing comprehensive care to cut back or leave their practices. Those problems need to be tackled for there to be a net increase in the number of family physicians providing primary care to Canadians.

THE DIABETES CONNECTIONS INITIATIVE: CO-DESIGNING A MODEL OF CARE FOR IMPROVING DIABETES PREVENTION AND TREATMENT WITH FIRST NATIONS COMMUNITIES IN NORTHWESTERN ONTARIO THROUGH EMPOWERMENT, AUTONOMY AND OWNERSHIP FOR HEALTH AND WELLBEING

SRPC Research Ref: Group 3 - 413

Sumeet Sodhi, Terri Farrell

Background: Diabetes has reached a high prevalence with high morbidity among Indigenous people living in Canada today, with a complex history of intersectional determinants of health including intergenerational trauma from colonization and structural racism at its root. This is exemplified through Indian Residential School experiences of physical and sexual abuse, disconnection from land and traditional lifestyles, and resultant mental health and addictions challenges as well as the socioeconomic factors of decreased access to adequate and affordable housing, nutrition, education & employment options, and accessible & culturally safe health care. Ongoing colonization and marginalization also play a critical role, as many interventions aimed at Indigenous communities fail due to limitations of Western health system structures to adapt and respond to the cultural contexts of Indigenous people.

Methodology: Our team co-created the Diabetes Connections Initiative, an integrated, evidence-based, customized, community-owned model of diabetes care and support, which are scaling up implementation among 33 on-reserve First Nations communities in the Sioux Lookout Area in Northwestern Ontario (population ~30,000). Our approach to developing the model of care prioritized collaborative community engagement, which centres on building reciprocal trust, maintaining relationships over time, and consistent open dialogue.

Results: Our model of care includes four strategic areas: 1) Supporting community health workers to have the capacity to assist with the delivery of diabetes prevention and care close to people's own homes as valued members of a primary health care team; 2) Improving the quality of care throughout a person's life course with a focus on trauma-informed and culturally-appropriate care; 3) Enhancing integration of health information systems and community-relevant data sharing to support evidence based decision making; and 4) Increasing community ownership through integrated knowledge translation.

Conclusion: This approach to co-developing a model of care, which includes collaborative community engagement at its core, has potential to have great impact on not just diabetes, but also for addressing other chronic conditions including cardiovascular disease, cancer and reproductive health, especially where access to care is limited through geographic, sociocultural and socioeconomic, or other structural barriers.

ADAPTING TO SCARCITY: PLASTICITY LESSONS FROM RURAL HEALTHCARE PRACTICE

SRPC Research Ref: Group 4 - 414

Dr. Frances Kilbertus, Dr. Sayra Cristancho, Dr. Donald Eby, Dr. Crystal Gaudet, Dr. Lisa Shepherd, Dr. Erin Kennedy

Background: Coping with scarcity, rural HCPs abandon rigid scopes of practice and shift their mindset of who does what in teams. We conceptualized these adaptations as “plasticity” which may be enacted intuitively but poorly understood. The rural environment offers a context to explore plasticity.

Methodology: Following Constructivist Grounded Theory, 20 clinicians from two rural sites in Canada were interviewed about experiences providing patient care in their communities. Interview data was analyzed using the constant comparative approach and the sensitizing concept of “plasticity”. The analytic process was iterative with analysis occurring alongside and informing data collection. Thematic categories were re-examined and their definitions were progressively refined. Once the coding scheme was sufficiently refined, relationships among categories were explored to raise the analytic level from the merely categorical to the conceptual.

Results: Data revealed two sides of plasticity. Acute plasticity is voluntary, heroic action in response to situations requiring timely intervention. Chronic plasticity is complex: non-voluntary expectations to do multiple, non-professional tasks which was highly stressful and demoralizing.

Conclusion: (1) Plasticity emphasizes the reality that rural care “isn't poor care; it is the best care

they're going to get where they are”.

(2) Plasticity brings rewards yet takes a toll on the provider, especially when it is not celebrated or rewarded.

(3) Plasticity demands system recognition and accountability to protect providers from its adverse consequences.

(4) Plasticity reveals that urban forms of formal training fall short in preparing providers for the realities of rural practice.

RURAL COMMUNITIES, REAL OPPORTUNITIES: FACTORS INFLUENCING THE RECRUITMENT AND RETENTION OF FAMILY PHYSICIANS IN RURAL COMMUNITIES

SRPC Research Ref: Group 4 - 415

Dr. Shayna Watson, Dr. Robin Kenzie, Dr. Kelsey Adams, Dr. Charles Wicks, Ms Erynn Monette, Ms Hassait Hilawe

Background: Understanding the complex factors impacting rural physician recruitment and retention is vital to enhance the rural physician workforce, address disparities in access to healthcare, ensure health equity, and maintaining the health of rural communities. This research aims to provide a comprehensive analysis of influences on physicians' decisions to practice in rural Eastern Ontario and the factors that support their retention to communities and rural practice.

Methodology: This study investigates factors influencing rural family physicians' decisions to start and remain practicing in rural areas through a mixed-methods approach. A list of family physicians practicing in rural Eastern Ontario was generated from the publicly available CPSO database and Eastern Regional Medical Education Program (ERMEP)'s preceptor list. Physicians from this list were recruited to participate via email. Consenting participants were invited to complete the online survey to collect demographic and preliminary data on factors influencing family physician recruitment and retention in rural

communities. Following completion of the survey, all participants were given the opportunity to also participate in a 30-minute semi-structured interview to expand on their responses and explore nuanced experiences and motivations. A comprehensive literature search on factors influencing recruitment and retention of family physicians in rural communities informed the survey and interview questions. Interviews were conducted over Zoom and recorded, transcripts were generated by Zoom's transcription software and de-identified for qualitative analysis. Coding of the qualitative data and subsequent thematic analysis was completed using NVivo qualitative analysis software. Data was analyzed by subgroups: physicians in their 1st 5 years of practice vs. those in communities for longer to evaluate factors affecting recruitment (i.e. newly practicing physicians) and retention (i.e. those in practice for longer).

Results: 51 participants completed the survey (33 male, 18 female) between the ages of 30 and 71. Nine respondents were within their first 5 years of practice and 27 had more than 10 years in practice. More than 75% respondents affirmed that clinical training experiences in medical school and/or residency influenced their decisions to practice rurally.

Factors that had an impact on rural family physicians when they were learners included: the broad scope of practice, the sense of community, and supportive preceptors. These learning experiences had a strong influence on career trajectory by: reinforcing previous rural connections, supporting existing rural career aspirations, and solidifying commitments to practice in rural areas.

25% of respondents identified signing bonus as a moderate or high impact strategy, 20% were moderately impacted in their choice to practice rurally by return of service obligations. Relocation assistance, housing subsidies and loan forgiveness were important for <15% of respondents. Other important factors included: family supports, collegial colleagues, broad scope of practice, extended health benefits, travel assistance, and a sense of community.

Respondents who found clinical training experiences in rural setting during medical school/residency to be important to their career path were also more likely to indicate an intention to continue to practice rurally. While survey respondents felt that financial incentives and a supportive work environment were the most impactful incentives, there was no statistical significance between any of the recruitment incentives on retention. When asked about the appealing aspect of rural family medicine respondents listed the diversity of medical experiences most frequently. Other positive aspects included: sense of purpose/fulfillment, strong patient relationships, and bring part of a close-knit community. Respondents considered the most important aspects of rural communities for new recruits to be: a supportive work environment, and clinical work that is rewarding, dynamic, and varied. When asked about incentives that had not been available to them, but which they thought would make a difference to future recruitment and retention efforts, the most common responses were: financial incentives, and a supportive work environment.

Conclusion: Recruitment incentives such as signing bonuses or contractual obligations such as a return-of-service agreement weighed moderately or heavily in the decision-making process for a quarter of respondents in the initial recruitment to rural areas. However, these financial incentives do not seem to have a statistically significant association with intent to continue to work rurally (i.e. retention). In other words, financial recruitment incentives alone do not have a lasting effect on retention. Clinical training experiences in medical school and/or residency, however, do appear to have a statistically significant association in both recruitment and retention. A broad scope of practice is attractive to rural family physicians, with the majority of respondents working in Family Practice plus additional practice areas and citing diverse clinical experiences available in rural medicine as an influence on their decision to practice rurally. The qualitative analysis of the semi-structured interviews provides further insight and meaning to the findings from the survey.

The results of this study align with the existing literature that emphasizes the importance of early educational and clinical experiences as an effective recruitment tool in rural communities. The effect of these clinical rotations can have long-lasting effects on recruitment by fostering a personal connection to rural life during training, fostering enjoyable rotations and supportive preceptors, providing diverse clinical experiences available in rural medicine, promoting a sense of integration into the community, and shaping a vision for medical practice and personal life balance. These results suggest that targeted interventions and policies aimed at improving rural healthcare recruitment and retention should focus on medical education and training, specifically on developing and supporting clinical rotations in rural communities during medical school and residency, as well as on financial incentives, practice support, and community integration strategies.

TRANSFUSIONS FOLLOWING FIRST TRIMESTER MIFEPRISTONE MEDICATION ABORTION: A SYSTEMATIC REVIEW AND META-ANALYSIS

SRPC Research Ref: Group 4 - 416

Jia Yu (Jennifer) Zhang, Dr. Kristina Gemzell-Danielsson, Dr. Felicity Goodyear-Smith, Dr. Danielle Mazza, Dr. Wendy V. Norman

Background: Rural-urban disparities exist in abortion access, including in Canada, and medication abortion (MA) has the potential to bridge gaps. However, guidelines restrict MA to people near emergency services, limiting rural access. The rare need for transfusion after MA may be driving restrictions.

Methodology: We conducted a systematic review following PRISMA guidelines, including original clinical studies reporting transfusion after legal first trimester MA in high-income countries. We searched Medline, Embase, Web of Science and Google Scholar systematically on April 6, 2023, and re-ran again on April 14, 2024. Studies of all languages and any year were included. Our protocol is registered on PROSPERO (CRD42023434904). Two authors independently completed title/abstract and full-text screening, and conflicts were discussed and resolved by two authors. We extracted data on incidence of transfusion, risk factors, clinical signs/symptoms, and the time post MA to transfusion. We assessed the quality of included studies using the Quality Assessment with Diverse Studies (QuADS) tool. We conducted meta-analysis comparing overall incidence of transfusion, with subgroup analysis of different misoprostol and mifepristone dosages, and weeks of gestation above or below 9 weeks. We conducted a separate analysis for simultaneous mifepristone and misoprostol administration. Meta-analysis was done using generalized linear mixed model with maximum-likelihood estimator for tau², Logit transformation and Clopper-Pearson confidence intervals. For data on patient and clinical characteristics associated with transfusions, we generated descriptive statistics.

Results: Of 1512 articles identified, 58 studies were eligible and included in data analysis. Overall pooled incidence rate of transfusion was 17/10000. Subgroup analyses were not statistically significant from each other. Data was insufficient to characterize risk factors and clinical course.

Conclusion: First trimester MA carries a very low risk of transfusion, with lowest risk potentially among gestations ≤ 9 weeks and protocols offering optional additional doses of misoprostol. Risk factors and timing of transfusion after first trimester MA are currently unknown. The lack of evidence indicates that patients and providers do not have accurate safe parameters for care. Research is urgently needed to investigate the incidence, urgency and risk factors for post MA transfusion, and to evaluate the preferences of people in remote communities accessing abortion.