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## Family Medicine Forum Poster Presentations

Nov 10–13, 2021



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# Poster Presentations

This activity has not been formally reviewed by the CFPC; however, it is eligible for non-certified Self-Learning credits. Mainpro+ participants may also earn additional certified credits by completing a [Linking Learning Exercise](#).

## Research Posters

### Medical education, resident/student/teaching

#### 364 A Review of Rural Family Medicine Education

Megan Gao, MD, CCFP; Erin Cameron, PhD; Brenton Button, MSc; Ghislaine Attema, MA; John Dabous, MSc; Carmela Bosco, Ivy Oandasan, MD, MHSc, CCFP, FCFP

#### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Assess the current state of rural medical education at both the undergraduate and postgraduate level
2. Identify progress, trends, and gaps in rural medical education
3. Propose recommendations to implement the Rural Road Map for Action in medical education

#### Description:

**Context:** Rural communities are underserved and have poorer health compared to the rest of Canada. The Rural Road Map (RRM) for Action provides a framework to improve rural Canadian physician workforce through a series of 20 actions. This study explores the rural learning opportunities across undergraduate and postgraduate family medicine programs in Canada to determine whether or not they are in alignment with RRM recommendations. **Methods:** An online survey was circulated to 17 undergraduate medical education (UGME) deans, and one circulated to 17 postgraduate family medicine program (PGME FM) directors, with particular focus on RRM Actions 1-5, 7, 8. Descriptive statistics on frequencies and basic content analysis were performed on the qualitative data. **Participants:** 12/17 (70.6%) and 13/17 (76.5%) respondent rate from UGME and PGME, respectively. **Results:** 1) UGME results: 58% of programs have rural admissions policies, with 83% having varying Indigenous admission processes. 50% have longitudinal integrated clerkships, of which 33% do not have enough opportunities to meet student interest. Although assistant and associate deans for rural and distributed medical education programs exist, only 17% of schools specify leadership positions are held by rural physicians. 2) PGME FM results: 23% of programs have equity and diversity policies, of which 67% have special consideration for rural admissions. 25% of family medicine residents engage the majority of their training in rural settings. 75% programs

have decision-making educational committees requiring rural physician representation. Some programs have illustrated successes in rural education and has cited physician retention rate of 80-85% in rural communities as a result of these endeavours. Barriers to rural education include limited resources as well as availability of rural physicians to provide preceptorships. **Conclusions:** There are inconsistent standards of rural medical training at both UGME and PGME. Integration of the RRM actions can further enhance rural physician training and workforce.

### 338 Practice Patterns of Early-Career Family Physicians

Monica Aggarwal, PhD; Sarah Simkin, MD, CCFP(FPA), MSc; Ben Chan, MD, MPH, MPA; Ivy Oandasan, MD, MHSc, CCFP, FCFP

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe practice patterns
2. Consider implications on access
3. Consider implications on planning

#### Description:

**Context:** The broad scope of practice of family physicians (FPs) and general practitioners (GPs) allows Canadians to have access to a range of services; any narrowing of scope has implications for workforce planning and access to care. **Objective:** To examine the practice patterns of early-career FPs. **Design:** Aggregate-level secondary data analysis.

**Setting/dataset:** Administrative data from the Canadian Medical Protective Association (CMPA) (2008-2019) and the Canadian Institute of Health Information (CIHI) (2005-2017).

**Population:** Early-career Canadian FPs. **Outcome measures:** Proportion of early-career FPs/GPs participating in family medicine (FM)/general practice only versus FM/general practice, anaesthesia, surgery, obstetrics, and emergency department. Trends over time, by jurisdiction, and by urban/rural setting are examined. **Results:** The number of new CMPA members who are FPs/GPs increased over 12 years. The proportion of new FP/GP members who were in exclusively FM/general practice increased (49.4% in 2008 to 64.0% in 2019) while the proportion of new FP/GP members who were in FM/general practice and providing obstetrics, anaesthesia, surgery, and shifts in the emergency department declined (18.2% to 8.6%). In all jurisdictions except for Saskatchewan and Manitoba, most GPs/FPs worked exclusively in FM/general practice. Majority of FPs/GPs (92%) practised exclusively FM/general practice in urban regions, while more FPs/GPs (24-30%) provided a range of services in rural areas. About one-third of new FPs/GPs changed their type of work within three years of starting practice, most moving from a broader scope of practice to office-based practice. Validation of these trends using CIHI data is in progress. **Conclusion:** The scope of practice of FPs/GPs appears to be narrowing. These findings have direct implications for primary care workforce planning. Further research is ongoing to elucidate the factors that influence practice choices of FPs to support workforce planning and improve access to care.

## 408 Adaptability in Family Medicine Education and Practice

Kathrine Lawrence, MD, CCFP, FCFP; Karen Schultz, MD, CCFP; Shelley Ross\*, MA, PhD; Cheri Bethune, MD, MCISc, CCFP, FCFP; Theresa van der Goes, MD, CCFP; Luce Péliissier-Simard, MD, MSc, CCFP, FCMFC; Kiran Dhillon, MD, CCFP; Martin Potter, MD, CCFP; Joyce Ching, MD; Nancy Fowler, MD, CCFP, FCFP

### Learning objective:

**At the conclusion of this activity, participants will be able to:**

1. Describe the construct of adaptability in the context of family medicine education and practice

### Description:

**Objective:** Adaptability has long been an implicit assumption of family medicine practice – and the challenges posed by the Covid pandemic have reinforced the need for adaptability. Education is a key component of ensuring that the family physician workforce has the skills to be adaptive to changing health systems and needs and contexts. The Certification Process and Assessment Committee is examining how residency programs can be supported to train graduates who are ready to “enter and adapt” to the practice of family medicine in any community. In order to clarify the concepts of adaptability and adaptive expertise, we must develop a shared understanding of the construct of adaptability and how it applies to the context of family medicine practice and training. The purpose of this study is to define what adaptability means in the context of family medicine education and practice. **Design:** Consensus development panel. **Setting:** College of Family Physicians of Canada. **Participants:** Seven assessment and education experts; one early career educator. (N=8). **Main outcome measures:** Consensus concept map of the construct of adaptability in the context of family medicine education and training. **Results:** Six consensus development panel members independently constructed concept maps. The panel discussed all maps, and combined them into one consensus concept map that incorporated all agreed upon elements of adaptability in the context of family medicine education and practice. The final concept map included skills and some observable behaviours associated with adaptability and adaptive expertise. Next steps include consultation with a broad spectrum of family medicine educators, learners, and practitioners to further refine the concept map. **Conclusion:** The consensus concept map should facilitate the development of a shared understanding of adaptability in the context of family medicine education and practice. This is necessary to ensure successful implementation of teaching and assessment of adaptability into residency programs.

## 406 Procedures in Family Medicine: Outcomes of training project

Kathrine Lawrence\*, MD, CCFP, FCFP; Tatjana Lozanovska; Nancy Fowler, MD, CCFP, FCFP; Brian Hess, PhD

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe the process of validation of the list of procedures for family physicians
2. Explain the difference between procedures on list A and list B

**Description:**

**Objective:** Family physicians provide a wide range of procedures. The list of procedure skills for Canadian family medicine residency programs was published in 2005 and has not been updated. As part of the College of Family Physician's Outcomes of Training Project (OTP), a new list was generated and required validation. **Design:** Delphi and consensus-building panel **Setting:** CFPC, online survey, virtual panel **Participants:** 85 family physicians across the country participated in both rounds of the Delphi. Demographics reflected the overall CFPC membership, and rural perspective was included. Four assessment and education experts and two early career educators participated in consensus building. **Intervention:** The Delphi approach included two rounds of surveys. Participants were asked to select all procedures graduates should be prepared to perform at start of practice. In the first round they could suggest additional procedures. In both rounds, they were asked to explain why they did not select a procedure. Members of the consensus group also completed the survey and then met virtually to review the Delphi results and debate the final selections. The list went through two further iterations via email. **Data sources:** Core and Enhanced procedure lists, Priority Topics and Key Features for Rural FM and Intrapartum Care, individual physician narratives from the OTP survey **Results:** The Delphi process produced a list of 129 procedures. The consensus panel clustered and consolidated this list. They identified 87 procedures they considered within the scope of family medicine and then identified procedures that all residents should be prepared to provide (list A), and those within scope but not expected for all residents (list B). **Conclusion:** This list describes the scope of procedures in family medicine. It is not an exhaustive list but provides guidance to residency programs and other stakeholders on what should be expected of a physician entering independent practice.

**275 COVID-19: Impact on University of Ottawa FM-resident confidence**

Kendall Noel\*, MDCM, CCFP, FCFP, MEd; Doug Archibald, PhD; Maddie Venables, PhD

**Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Explore the use of a resident confidence survey as one measure of curricular objective attainment
2. Explore the use of data analytics as a means to characterize residents in difficulty
3. Explore the short-term impact of COVID-19 restrictions on postgraduate FM training in a Canadian University

**Description:** COVID 19 has had an impact on the world resulting in the lost of lives, jobs, and opportunities, with no industry immune to the effects of the viral illness. The medical

profession has played its part in maintaining a core level of care, while at the same time pivoting resources, both human and financial, towards the care of affected individuals. Much has been written in both the lay and scientific press examining the effects of the pandemic on the resiliency of medical practitioners. An equal number of articles have postulated the impact of a drop in face to face patient care on medical education. Since 2016, the Department of Family Medicine at the University of Ottawa has biannually administered a 105 item survey to its PGY1 and PGY2 residents. Used to gauge resident levels of confidence throughout their training, the results of the survey were repurposed to answer the question, what effect has the pandemic and its restriction of in person activities had on the confidence of medical trainees in a family practice residency in Canada. Our results showed that while there was an initial impact on PGY-1s in training during the beginning of the pandemic, this COVID effect was no longer seen by the time they were at final stages of their residency training. Conversely, our results indicated that those trainees who were in their final year of medical school training at the time of the pandemic, were not affected. Our results suggest that residency programs will need to work with their 2021 cohort of PGY-1s to overcome the educational deficits that might have resulted in the pandemic hitting during their clerkship training.

## **294 Improving Virtual Supervision of Learners in Family Medicine**

Sejal Doshi\*, MD; Rachel Goldberg; Risa Bordman, MD, CCFP

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Design a workshop supports Faculty to implement a brand-new teaching ability: Virtual Supervision
2. Recognize the importance of customizing the approach to virtual supervision of medical trainees
3. Incorporate co-learning of teachers and students to facilitate knowledge translation in a supportive environment

### **Description:**

During COVID-19 there was a rapid shift from providing in-person care to using virtual platforms. This adjustment was additionally challenging for clinician teachers and many were reticent to teach. We designed a Virtual Supervision workshop to increase comfort and willingness to supervise learners. A needs assessment survey was sent to all Department of Family and Community Medicine faculty at the University of Toronto Temerty School of Medicine. A combined didactic-interactive workshop was developed. The workshops were interactive incorporating live and recorded demonstrations of technological skills and small group breakout rooms for peer-to-peer support. As learners were exposed to virtual care, they joined the committee and contributed to the workshops and small groups. Metrics and questions during the workshop, along with post workshop surveys were used to improve future workshops. More practical demonstrations were added, and learners were included in a co-learning model. Over the course of six months,



five workshops were held for over 200 family medicine faculty and learners. Quantitative results from post workshop surveys demonstrated that 97% of participants noted an improvement in their ability to teach learners virtually (44% noted significant improvement, 53% reported slight improvement). In addition, 82% of participants reported that the sessions encouraged them to change their current teaching practice, which was confirmed with qualitative data analysis. Using QI methodology this workshop provided preceptors with tools, guidance, demonstrations, and an opportunity to problem solve and discuss challenges to assist them in their pivot to Virtual Supervision.

### **333 Impact of the Virtual Care Competency Training Roadmap (ViCCTR)**

Risa Freeman, MD, CCFP, MEd, FCFP; Mahan Kulasegaram, PhD;  
Azadeh Moaveni, MD, CCFP; Stuart Murdoch, MD, CCFP, FCFP; Maria Mylopoulos, PhD;  
Karina Prucnal, MD, CCFP; Nicole Woods, PhD; Ramanan Aiyadurai

#### **Learning objectives:**

#### **At the conclusion of this activity, participants will be able to:**

1. Understand the various components of ViCCTR including its purpose, content and relevant educational principles
2. Describe the impact that ViCCTR had on family medicine residents' preparedness for future virtual care
3. Develop an approach for the development of future impactful educational interventions

#### **Description:**

**Context:** With the onset of the COVID-19 pandemic, family physicians rapidly pivoted to providing virtual care to their patients. However, formal instruction on virtual care was not previously included in many curricula for family medicine residency training programs. The Virtual Care Competency Training Roadmap (ViCCTR) is an online education program that provides content, resources, and assessment supporting the development of skills to ensure comprehensive virtual care. **Objective:** The purpose of this study was to assess the impact of the ViCCTR modules on family medicine residents' ability to provide holistic virtual care. **Design:** This project was approved by the University of Toronto REB. The ViCCTR modules are grounded in theories from the learning sciences, including adaptive expertise, conceptual coherence and test-enhanced learning. An iterative cycle of implementation, evaluation and improvement took place. Residents who used ViCCTR were invited for interviews to share their experiences including emergent practices developed in response to their specific clinical contexts. A series of assessments delivered through the modules objectively assessed residents' competencies in virtual care. **Setting:** Department of Family and Community Medicine, University of Toronto **Participants:** ViCCTR was distributed to all 360 family medicine residents at UofT. Four residents volunteered to participate in the interviews. **Main outcome measures:** 1. Residents' competency in virtual care; 2. Impact of this type of educational intervention on residents' learning **Results:** The objective evaluation showed knowledge growth. Evaluation data

from quantitative evaluation tools (n=273) and interviews with residents (n=4) revealed high satisfaction, ease of use, and anticipated impact on practice. Future evaluation will examine sustained changes in practice and clinical reasoning. **Conclusion:** The ViCCTR modules support future family physicians in meeting the demands of clinical reasoning in a virtual setting on an ongoing basis. These modules can serve as a model for future impactful educational interventions for postgraduate learners.

#### **407 Decoding Guidelines, Frameworks, and Jargon in Competency-Based Assessment**

Shelley Ross\*, MA, PhD; Karen Schultz, MD, CCFP; Kathrine Lawrence, MD, CCFP, FCFP; Cheri Bethune, MD, MClSc, CCFP, FCFP; Theresa van der Goes, MD, CCFP; Luce Pélissier-Simard, MD, MSc, CCFP, FCMFC; Kiran Dhillon, MD, CCFP; Martin Potter, MD, CCFP; Joyce Ching, MD; Nancy Fowler, MD, CCFP, FCFP

##### **Learning objective:**

**At the conclusion of this activity, participants will be able to:**

1. Explain the relationships between the various CFPC assessment guidelines and frameworks for residency education

##### **Description:**

**Objective:** Since 2009, the College of Family Physicians of Canada (CFPC) has introduced a series of educational assessment guidelines, frameworks, and statements. Most recently, the Family Medicine Professional Profile (FMPP) was developed to ensure a clear definition of ‘comprehensiveness’ in family medicine. The FMPP was then elaborated into the Residency Training Profile. While the new Training Profile integrates many of our frameworks (Four Principles, CanMEDS-FM, Patient’s Medical Home) it introduces Core Professional Activities (CPAs) as a way to define the comprehensive scope of training. The approach to assessment remains unchanged, and is defined by the Continuous Reflective Assessment For Training guideline, Assessment Objectives, Priority Topics and Key Features, and Essential Skill Dimensions. Despite recent efforts to bring it all together, the many elements can be both overwhelming and confusing for those involved in residency education at the program level. Our goal in this study is to provide illustrative guides for how all of these documents fit together. **Design:** Consensus development panel. **Setting:** College of Family Physicians of Canada. **Participants:** Seven assessment and education experts; one early career educator; one resident. (N=9) **Data sources:** All CFPC education guidelines, statements, frameworks, and policy papers 2016-2021. **Results:** The panel reviewed the documents, which were categorized as “curriculum guidance”, “assessment guidance”, “assessment tools”, “teaching guidance”, or “combination”. Through multiple discussions and iterative review and revision, the panel developed simple illustrative guides in multiple modalities (narrative summaries, infographics, PowerPoint slide decks, posters). Evaluation of the perceived utility of the guides will be the next step. **Conclusion:** The goal of the guides is to support better implementation and integration of the CFPC education and assessment documents by clarifying purpose and



intent, and create a shared understanding of what the documents mean and how they are intended to be used in residency training programs.

## **265 Resident and Family Physician Perspectives on Billing Education**

Anthony Li; Maximilien Boulet, MD; Kelly Howse, MD, CCFP, FCFP;  
Akshay Rajaram, MD, MMI

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Recognize billing as an important skill for residents and attending physicians to master
2. List two educational ways of contributing to a more positive billing experience during residency
3. Describe future directions for billing educational research in Canada

### **Description:**

**Objective:** To identify and assess the impact of billing education on self-reported billing confidence of residents and attending physicians practicing at an academic family health team in a single payer setting. **Design:** This was a single-centre, cross-sectional study involving a survey-based approach. **Setting:** The largest site of an academic family medicine residency program. **Participants:** All first and second-year residents and attending physicians working or who had worked at the site were eligible to participate. **Intervention:** Participants completed a 20-question electronic survey on their exposure to billing education and their self-reported confidence with various billing activities. **Results:** 25% (n=40) of eligible attending and resident physicians completed the survey. There were statistically significant differences between attending and resident physicians' billing experience (median 117.50 months vs 7.50 months) and confidence in identifying common billing errors. Qualitative analysis of free text comments revealed the positive impact of early billing exposure, but opportunities for longitudinal feedback and mentorship to increase billing confidence. **Conclusion:** Despite the small sample size, findings suggest that billing is an important educational activity for resident physicians and that early exposure with standardized training contributes to a more positive experience during residency. Although attending physicians had more billing experience, they also desired more training and feedback with a focus on visit coding and billing optimization. In alignment with competency based medical education, family medicine residency programs should consider developing or enhancing billing curricula to address these areas in the future.

## **274 Diagnosing Clinical Reasoning Problems Using SOOs: A proposal**

Kendall Noel\*, MDCM, CCFP, FCFP, MEd; Eileen TenCate, MD

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

### **Poster Presentations**

1. To become familiar with Audetat's Taxonomy for problems in clinical reasons
2. Examining the Use of SOOs as an instrument to diagnosis resident difficulties with clinical reasoning
3. Use of data analytics to help programs in family medicine focus their limited resources

### **Description:**

Simulated Office Orals have been used by the college to ascertain a candidates ability to conduct a medically effective patient doctor encounter, which the college believes can be best achieved using a patient centred clinical method. The use of old SOOs by programs in family medicine is common place. The analytics of the data generated by the practice SOOs is not often used to help guide evaluation of residents. Effective supervision of a resident learner results in learners being provided feedback on their diagnostic approach and patient centeredness. The use of video review is common to help proactively identify residents with problems related to clinical reasoning. We propose critically analyzing the data generated by practice SOO sessions conducted during residency as a way to identify residents in difficulty, by deconstructing the marks generated during a practice SOO session. We further provide a suggested algorithm that might be used to assist in the provision of feedback to residents who generate non-certificant on any of the SOO components. Finally, we propose that this algorithm can be used to assist faculty in diagnosing problems in clinical reasoning, using Audetat's taxonomy.

## **58 A Novel Transition-to-Practice Curriculum for CCFP (EM) Programs**

Avik Nath\*, MD, MSc; Warren J. Cheung, MD, MMed; Jennifer Leppard, MD; Jeffrey J. Perry, MD, MSc

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Understand the components of this new transition-to-practice curriculum
2. Use this new curriculum in their own respective programs
3. Build on this work to develop new transition-to-practice strategies

### **Description:**

The importance of a resident's ability to transition-to-practice is highlighted in the medical education literature. A recently published survey demonstrated that only 24% of CCFP(EM) Programs in Canada have a "transition-to-practice" curriculum. We implemented a novel transition-to-practice curriculum incorporating four new processes: 1) explicit sequencing of competency progression using competence progression cards, allowing for a shared mental model of expectations with supervisors; 2) establishment of coaching teams through resident-faculty pairings on shift with the intent of establishing an educational alliance; 3) establishment of independent shifts to foster practice autonomy; and 4) implementation of a transition-to-practice seminar series. The utility of these components as perceived by residents was assessed over 3-years following

implementation. Electronic surveys were sent to all graduating residents in their last week of residency with a follow-up email 3-days after. We used descriptive statistics assessing resident satisfaction and their perceived readiness for practice. 17 residents (56% female) were surveyed over 3 years from 2018-2020. 100% of residents surveyed found independent shifts useful, liked the idea of clinical coaching teams and found there was progression of independence over the year. 88.2% of residents reported feeling ready for independent practice. We developed an evidence-based, novel transition-to-practice curriculum. The four components are not resource intensive and can be implemented by other programs. Using Progression of Competency shift cards ensures both learner and supervisor are clear on goals and expectations at each stage of training. Focusing on development through coaching teams early on allows for continuous assessment and trust for both resident and supervisor. Independent practice shifts are useful to build confidence and autonomy while balancing appropriate supervision and teaching. Finally, transition to practice seminars on previously published transition-to-practice curricula allow for targeted education for must-know content. This framework may be used by other programs to improve residents' readiness for independent practice.

#### **409 Developing Learning Objectives to Teach MAID to Residents**

Susan MacDonald, MD, MHSc, FCFP; Sarah LeBlanc\*, MD, MSc, CCFP;  
Nancy Dalgarno, MEd, PhD, OCT; Karen Schultz, MD, FCFP; Mary Martin, MSc;  
Daniel Zimmerman, MD, CCFP; Emily Johnston, MSc

##### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Identify the MAID-related educational needs of family medicine residents
2. Describe MAID-specific learning objectives and current curricular gaps
3. Explore integrating MAID learning objectives into a family medicine residency curriculum

##### **Description:**

**Objective:** To develop a set of learning objectives (LOs) to inform a foundational medical assistance in dying (MAID) curriculum in Canadian Family Medicine residency training programs. **Design:** Mixed-methods were used to develop LOs based on a previously-published needs assessment. Draft LOs were evaluated and modified using a modified Delphi process and focus group, and then mapped to the existing Department of Family Medicine residency curriculum at Queen's, as well as the CFPC Priority Topics and CanMEDS-Family Medicine (FM) roles. **Setting:** A large, four-site family medicine residency program in southeastern Ontario. **Participants:** The modified Delphi process involved key faculty and resident leaders in the family medicine program, while the focus group included the faculty knowledgeable about MAID and the assessment system. **Findings:** Nine LOs were developed to provide a foundational education regarding MAID. While all LOs could be mapped to the Domains of Clinical Care within the departmental curriculum, they mapped inconsistently to departmental Entrustable Professional

Activities, the Priority Topics, and CanMEDS-FM roles. LOs focused on patient education and identification of patient goals were most readily mapped to existing curricular framework, while LOs with MAID-exclusive content revealed gaps in the current curriculum. **Conclusion:** The developed LOs provide a guide to ensure family medicine residents obtain generalist-level knowledge to counsel their patients about MAID. These LOs can be used not only to develop FM MAID curriculum and assess competency, but also serve as a model for developing LOs and curriculum in other Canadian specialty residency programs.

#### **411 Improving Resident Skills Leading and Documenting Serious-Illness-Conversations**

Conor Barker\*, MD; Camille Lemieux, MD, CCFP; Warren Lewin, MD, CCFP

##### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. After this presentation, participants will describe an approach to improve resident comfort leading Serious-Illness-Conversations
2. After this presentation, participants will appreciate benefits to integrating this approach into their practices
3. After this presentation, participants will describe how to teach this approach to improve Serious-Illness-Conversation documentation

##### **Description:**

**Objective:** To determine family medicine residents' comfort approaching Advanced Care Planning (ACP) and Goals of Care (GOC) conversations (together labelled Serious Illness Conversations (SICs)), followed by assessments of their perceptions and SIC application after a training session and structured tool implementation. **Design:** Quality Improvement study composed of (1) a one-hour educational intervention, and its effect on both pre-post (2) attitudinal survey assessments and (3) qualitative chart review of SIC documentation.

**Setting:** Urban Family Health Team (FHT) within University of Toronto's Department of Family and Community Medicine. **Participants:** Sixteen first- and second-year family medicine residents training in the FHT. **Intervention:** A one-hour teaching session reviewed an evidence-based guide to leading SICs and empathic communication skills, and introduced a new electronic tool created mirroring the structured approach taught to assist residents to lead and document SICs in the medical record. **Main outcome measures:** Pre- and post-intervention resident knowledge and comfort leading SICs and the quality of these conversations measured by the number of documented sections of the conversation guide in the clinical notes. **Results:** Sixteen residents completed pre-session surveys and 11 completed post-session surveys. After the teaching session, resident comfort introducing and leading SICs in the ambulatory setting both increased by 19%. While 54% of residents could not describe a specific approach guiding their SICs pre-intervention, 73% reported they could do so post-intervention. Despite minimal uptake following the teaching session and electronic tool implementation, when applied, patient charts contained higher quality SIC documentation. **Conclusion:** A one-hour teaching

session providing residents with communication skills, a structured approach to leading SICs and an associated documentation tool led to increased resident comfort leading and documenting these conversations. Assessing resident barriers to using the SIC guide will be addressed including making recommendations for increasing clinical use to drive documentation of patient goals for this vulnerable population.

## **271 Developing Virtual Conference Education: Pearls by medical learners**

Sandra Sabongui\*; Kenya A. Costa-Dookhan\*, MSc; Charlie Guiang, MD, CCFP, FCFP

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Identify gaps in undergraduate medical curricula that can be addressed through extracurricular educational opportunities
2. Describe resources and steps needed to facilitate a national virtual conference for medical learners
3. Evaluate success in achieving learning objectives and implement changes based on learner feedback

### **Description:**

Current undergraduate medical curricula do not adequately train medical learners to care for and understand the unique needs of transgender patients. Transgender care is an evolving part of family medicine, and education early in medical curricula is essential to exposing medical learners. To address this gap, we, two first-year medical students, developed a virtual conference on providing gender-affirming care to transgender patients, for medical learners across Canada. The goal of our conference was to provide medical learners with the skillset to advocate for and improve the care experiences of trans patients throughout their training and into practice. To do this, we took a series of steps over the span of several months which can serve as a guide for developing any virtual conference targeting medical learners. First, we designed the conference structure, central theme, and learning objectives based on gaps in current medical curricula. We then built a network by connecting with mentors who were leaders in trans care. With their help, we applied for funding through a university-wide grant opportunity. We also used this network to connect with five physician speakers, and a patient, who volunteered to share their lived experience with learners. We finalized a date for the conference and advertised the event through medical school channels across the country. The virtual conference featured talks from each specialist and used open discussion to enhance the learner experience. Following the conference, we collected feedback from participants to improve future events. In summary, this national conference served as an extracurricular opportunity to fill gaps in undergraduate medical curricula and advocate for a marginalized patient population. Conferences for medical learners by medical learners are essential to supplementing learning, and encouraging discussion and collaboration across medical schools. Following a process similar to ours, future conferences can be effectively developed to enrich learning.

## 108 Enhancing Training in Addiction Medicine at Queen's University

Sean Haffey\*, MD, MSc; Eva Purkey, MD, MPH, CCFP; Meghan Wilson, MD, CCFP

### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Appreciate the urgent need for increased addictions training in non-urban Family Medicine residency programs
2. Understand the utility of didactic addictions training in Family Medicine curricula
3. Reflect on the role of the family physician in treating and preventing substance use disorders

### Description:

**Context:** As the rates of substance use disorders and overdose continue to accelerate in Canada, so too does the need for addictions training among primary care physicians. In Kingston, Ontario, postgraduate trainees at Queen's Family Medicine serve a patient population with high addiction rates in a small city lacking the resources of larger urban centres. **Objectives:** Given that the Queen's Family Medicine program only offers four hours of didactic training in addictions, we aimed to assess the need for increased addictions education and, to this end, to establish an annual academic event in the curriculum focused on substance use disorders. **Design:** This cross-sectional descriptive study consisted of two online surveys and was approved by the local Research Ethics Board. **Participants:** All active post-graduate trainees at the Kingston-Thousand Islands site of the Queen's Family Medicine program were invited to participate in the study. **Main outcome measures:** (1) Assess residents' perceived need for increased addictions training at Queen's Family Medicine, and (2) evaluate the effectiveness of a piloted academic half-day in addiction medicine. **Findings:** Residents expressed an overwhelming need for increased addictions training at Queen's Family Medicine, a desire to learn more about addiction medicine, and a lack of readiness to manage patients with substance use disorders. Subsequently, residents who attended the piloted academic half-day reported that the event enhanced their understanding of addictions, bridged previous educational gaps, and conferred knowledge and skills that they planned to incorporate into their future practices. **Conclusion:** This study serves as a benchmark for identifying the educational needs of Family Medicine trainees in the emerging subspecialty of addiction medicine, as well as for implementing curricular changes that successfully address core competencies in this field.

## 327 Comparing Clerkship Directors' Expectations of PE With PoCUS

Valérie Desjardins\*, BSc; Paul Pageau, MD; Barbara Power, MD;  
Isabelle Burnier, MD, MEd; Carolina Souza, MD, PhD; Warren J. Cheung, MD, MMed;  
Michael Y. Woo, MD

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe the discrepancies between the expectations of clerkship directors and the formal pre-clerkship objectives
2. Recognize the need to strengthen communication of expectations between the pre-clerkship and clerkship faculty
3. Recognize the need to implement targeted PoCUS education of clerkship directors

**Description:**

A pilot-tested, expert developed, bilingual on-line survey was sent to all clerkship directors (23) at uOttawa in December 2019 to compare the clerkship directors' expectations of physical examination skills with PoCUS skills, before and after completing the clerkship rotation. The response rate was 60.9% (14/23). The survey included questions regarding the expectations of medical students with respect to physical examination and PoCUS using the RIME Framework: none, reporter, interpreter, manager, educator. It was found that clerkship directors have low expectations of PoCUS skills for entering and graduating clerks when compared with their physical examination skills despite formal pre-clerkship PoCUS objectives. With regards to physical exam skills, 82.8% of directors had no expectations or expected students to be reporters when starting clerkship. At graduation, 77.5% of directors expected students to be interpreters, managers, or educators. For PoCUS, 100.0% of directors had no expectations or expected students to be reporters when starting clerkship. At clerkship completion, 33.0% of directors felt that students should be interpreters or managers for PoCUS skills. Enhanced communication and targeted education of directors could improve the PoCUS curriculum.

**385 Survey of Medical Student Empathy**

Safina Adatia, BAsC, MSc, MD; Pierre-Paul Tellier, MD, CCFP

**Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Implement the teaching of empathy at all levels of the medical curriculum, focusing on clerkship
2. Include video observation of medical student by psychologists and family medicine staff during rotations
3. Encourage reflective exercise on improving empathy in patient care by students in clinical rotations

**Description:**

**Background:** Within a medical context, empathy is defined as "an appropriate understanding and communication of a patient's experience." While it has been established that empathy is an important quality to have as a future doctor, studies have shown that empathy in medical students declines during their clinical years. However, there are no studies to date that evaluate medical student empathy in Canada. Therefore,



we aimed to evaluate medical student empathy at McGill University Medical School using the Jefferson Scale of Empathy (JSE). **Methods:** We used a cross-sectional study design and invited medical students across all 4 years, in October 2019, to complete the JSE. The JSE is a validated psychometric tool that measures empathy at one point in time. The survey was distributed via email and on social media. We offered the chance for participants to win a prize if they completed the survey. **Results:** A total of 133 students from all 4 years responded, proportionate across each year. Differences in mean questionnaire were not statistically significant for gender ( $p=0.364$ ), age ( $p=0.2746$ ) or specialty interest ( $p=0.436$ ). The ANOVA for differences in year of medical school was significant ( $p=0.0104$ ). Between groups analysis revealed a statistically significant decrease between Med-2 empathy scores (average score 117.6) and Med-3 (107.5),  $p<0.01$ . **Conclusion:** Our statistical analysis determined that medical students' empathy declines between the second and third year of medical school in a Canadian context, consistent with global results. This information can help us target changes in the medical curriculum to preserve empathy in students, and prevent this decline, which could then be applied to other medical schools internationally.

### 335 Prevalence of Undernutrition and Underhydration in Medical Students

James Lai\*, MD; Danielle Manis, MD, CCFP, FCFP

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Identify the prevalence of missing meals and inadequate fluid intake in medical students
2. Describe the demographic factors associated with a greater prevalence of these phenomena
3. Examine students' perceived reasons for missing meals and consuming insufficient fluids

#### Description:

**Objective:** To explore the prevalence of and perceived reasons for missed meals and insufficient hydration, which can negatively impact cognition, in medical students at the University of Toronto. **Design:** Cross-sectional survey. **Setting:** A single medical school at the University of Toronto. **Participants:** All MD students during the 2020-2021 academic year at the University of Toronto were eligible to participate; 264/1040 (25.4%) responded. **Methods:** We distributed an online survey assessing demographic variables; frequency of missing meals; estimated daily fluid intake; and perceived reasons for missing meals and insufficient hydration. A Certificate of Approval was received from the University of Toronto Research Ethics Board. **Main outcome measures:** Prevalence of missed meals and inadequate fluid intake, and students' self-reported reasons for missing meals or inadequate fluid intake. **Results:** In the week prior to survey completion,  $55.7\pm6.0\%$  (95% confidence interval) of participants missed breakfast,  $51.5\pm6.0\%$  lunch, and  $20.1\pm4.8\%$  dinner, at least once. Missing lunch at least once was reported more often

by clerks than pre-clerks (chi-squared test  $p < 0.001$ ), and by students reporting over 40 hours/week of clinical activity than those who reported fewer hours ( $p < 0.001$ ). Reasons for missing meals varied between meals, but lack of time was commonly cited for all meals.  $22.7 \pm 5.0\%$  of participants reported an average daily water consumption of 6 cups or more. Lack of time, inaccessibility, and infection control were common barriers to fluid consumption. **Conclusion:** We quantified the prevalence of missed meals and insufficient hydration for the first time in a cohort of Canadian medical students, demonstrating that a large percentage reported missing meals, particularly breakfast and lunch. Some of these phenomena are more prevalent in students engaged in clinical rotations, suggesting a possible role for medical culture in driving these behaviours. The perceived barriers reported may direct future interventions to improve medical student wellness.

## 295 Rapid Reviews in Long-Term Care

Rae Petruca\*, MD, CCFP; Elizabeth Hansen; Lindsay Ironside; Olivia Lafrance; Rhonda Bryce, MD; Nicole Jacobson, MA; Vivian Ramsden, PhD, MCFP(Hon)

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe the use of rapid reviews in Long-Term Care research or quality improvement work
2. Use rapid reviews to facilitate medical learner involvement in research during a pandemic
3. Apply rapid reviews in family medicine clinical practice to answer questions or engage in research/QI

### Description:

**Background:** Long-term care (LTC) facilities require urgent, evidence-based care renewal. During 2020 three medical student-driven research projects aiming to study care satisfaction, patient care team dynamics, and advance care directive effectiveness in a local LTC facility required a marked shift in approach due to COVID-19 regulations.

**Design:** Rapid Reviews completed by medical students accessing PubMed database using relevant MeSH terms with a 10 year time period and English language limitations, review articles were prioritized and single studies were accessed in order of relevance. **Setting:** virtual literature review Participants: not applicable **Intervention:** not applicable **Main**

**outcome measures:** A total of 52 publications were evaluated using the Critical Appraisal Skills Programme (CASP) for the final synthesis of all three projects. Relevant information was retrieved for all three areas, suitable for local evaluation/intervention at micro, meso, and macro policy levels. **Findings:** Recommendations were found for improving general physical environment, interpersonal relationships, and resident autonomy in order to improve quality of life within a long-term care facility. Suggestions for improving patient-centeredness of care include involvement of all members of the care team, strategic implementation of changes, and involvement of family in decision making.

Recommendations for advanced care planning include viewing it positively, completing it

early with whatever team member is available, including family, and prioritization within the organization. **Conclusions:** Rapid reviews of issue-specific long-term care literature are low resource avenues towards coordinated care improvement. They may also serve as rapid means for regular policy updates while providing next-generation care providers with improved LTC perspectives. This methodology is accessible to community based primary healthcare providers and those supervising medical learner research.

## 288 Exploring Online Communities of Practice for Medical Educators

Christine Wu\*, BHSc; Sofia Khan, MD, CCFP

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe the structure and function of online communities of practice
2. Summarize the key features of successful online communities of practice
3. Recognize the benefits to a clinician teacher in participating in an online community of practice

### Description:

**Context:** Physicians involved in medical education can feel isolated from other educators. Online communities of practice (CoPs) are a medium for promoting knowledge, sharing experience and resources, professional collaboration, and social connection. A CoP framework in medical education provides a space for faculty to collaboratively reflect on, review, and update teaching practices. Virtual CoPs are ideal for educators who struggle with limited time, local networks, and travel opportunities. The need to virtually connect with colleagues has been highlighted through the COVID-19 pandemic. At the University of Toronto, community family physician preceptors supervise second year medical students in the clinical program known as Family Medicine Longitudinal Experience (FMLE). A Preceptor Needs Assessment survey indicated significant interest in creating an online CoP. We completed a literature review to learn about existing online CoPs with the goal of using the findings to develop an online CoP for FMLE preceptors. **Objective:** To learn more about existing online CoP groups for physicians in their role as teachers.

**Design:** We conducted a literature review of online CoPs for physician medical educators.

**Main outcome measures:** Specific CoP factors examined were: (1) structure, (2) purpose, (3) variables for success, (4) barriers and pitfalls, (5) platforms used, and (6) evaluation of these groups. **Findings:** 22 studies met criteria. The structure of CoPs varied greatly, ranging from social media groups to formal faculty development and project-based curricular programs. Features of successful CoPs were the presence of moderators, a shared foundation, establishment of group objectives, and a closed and secure group. Participants reported professional development, collaboration, and feeling supported by fellow medical teachers.

**Conclusion:** Overall, these virtual networks provided an opportunity for professional engagement and communication where clinician-teachers could learn, discuss, and collaborate on issues related to teaching. Future studies are required to demonstrate if there is objective improvement in teaching.

## 284 Learning Needs and Preferences of Early Career Physicians

Anne Mahalik, MAHSR; Lisa Bonang\*, MD, FCFP;  
Constance LeBlanc, MD, FCFP, CCFP (EM), MAEd; Tanya MacLeod, MSc

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe perceived gaps in knowledge for early career physicians
2. List factors that influence early career physicians' ability to participate in CPD
3. Identify early career physicians' preferred learning formats for CPD

### Description:

**Objective:** The purpose of this study was to explore the learning needs and preferences of early career physicians. We defined early career physicians as those who graduated from medical school within the last 10 years. **Design:** We used a mixed-methods design, including a survey and semi-structured interviews. **Setting:** Online survey, phone interviews. **Participants:** Survey participants included family medicine (n=29) and royal college (n=27) physicians. We conducted interviews with 5 family medicine and 6 royal college physicians. **Main outcome measures:** We calculated descriptive statistics for survey data and conducted comparisons between physician groups using t-tests,  $p \leq 0.05$ . We analyzed qualitative survey and interview data using thematic analysis. **Findings:** Family medicine and Royal College physicians identified similar learning needs, but Royal College specialists had a greater need for professional topics (e.g., research, leadership). Family physicians felt more strongly about the importance of program credits than other specialist groups. The main factors influencing CPD choice were relevance of the topic, program day/time and cost. Interestingly, both groups reported that the local development of CPD was the least important factor influencing their decision to participate. **Conclusion:** Since the start of the Covid-19 pandemic, many CPD programs have moved to remote delivery, and as a result, physicians now have unprecedented access to CPD. In this competitive landscape, it is increasingly important for CPD providers to understand physician learning needs, particularly those who are new to practice. Our findings highlight the importance of developing CPD that is relevant, affordable, and flexible.

## 270 Uncovering Hidden Scholar Feedback With Field Notes

Gill Kazevman; Jessica L. Marshall; Ben Shachar; Morgan Slater, PhD;  
Fok-Han Leung, MD, CCFP; Charlie B. Guiang, MD, CCFP

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Explore areas of overlap between the Scholar role and the Medical expert role
2. Identify challenges in providing postgraduate learners with Scholar role feedback
3. Review recommendations to improve scholar role feedback for postgraduate Family Medicine learners

## Description:

**Background:** The CanMEDS Scholar role remains one of the most neglected and difficult to assess roles in medical education literature. Our study analyzes 'field notes' - frequent formative written feedback in postgraduate family medicine, and examines whether the Scholar role feedback can be found within the feedback for the Medical Expert role.

**Methods:** A deductive analysis was conducted on field notes generated by resident preceptors in the Department of Family and Community Medicine (DFCM) at the University of Toronto (UofT) between April 2017 and July 2017. We focused on Medical Expert role feedback. Scholarly roles derived from the CanMEDS Scholar role description were used to identify Scholar role feedback in these field notes. **Results:** 1809 field notes providing feedback to the Medical expert role were analyzed. Almost half of all scholarly feedback given to postgraduate Family Medicine learners was hidden within Medical expert feedback. Two scholarly roles were highlighted - Evidence-based decision-maker and Lifelong learner. **Conclusion:** This study highlights aspects of the Scholar role that can overlap with Medical expert role feedback. To address this overlap, feedback tools should allow learners to receive comprehensive feedback in their learning encounters. Moreover, more attention should be given to better prepare preceptors to evaluate and categorize these roles in the clinical setting.

## 136 Why Community Family Physicians Teach

Mendy Loewenthal\*, MD; Mike Ward, MD, CCFP

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe three motivating factors for community physicians to teach residents
2. Describe three barriers for community physicians to teach residents
3. Describe your own barriers and motivating factors for teaching

## Description:

**Objective:** To explore motivating factors and barriers to teaching for community family physicians in Ontario, Canada. **Design:** Qualitative study using semi-structured interviews.

**Setting:** Community family medicine in the Durham region, Ontario. **Participants:**

Purposive sampling of ten practicing community family medicine physicians currently teaching family medicine residents. **Methods:** Participants were invited to participate in one-on-one phone interviews that were recorded and transcribed. Thematic analysis and grounded theory was used to identify motivating factors and barriers to teaching. **Main findings:** The most common motivating factors for community family physician teachers in Ontario, Canada were: general practice knowledge and skills, personal fulfillment and enjoyment, responsibility of the profession, and professional development. The most common barriers for community family physician teachers in Ontario, Canada were: time, space, increasing workloads, remuneration, work life balance, peer supports, patient compliance and academic supports. **Conclusion:** Participants highlighted the intrinsic joys

of teaching as outweighing possible financial loss due to teaching. There was notably less concern around time and remuneration possibly due to Ontario's unique funding system. Distance from the university was highlighted as a unique barrier to academic support for community family medicine teaching sites and building local peer groups was suggested as a mitigating factor.

## Clinical

### 329 Advance Care Planning in Family Medicine

Rashi Hiranandani, MD, MSc; Susan Phillips, MD, CCFP

#### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Determine people's preparedness, preferences and perceptions about enablers and barriers in advanced care planning
2. Inform family physicians about people's preparedness, preferences, and perceptions about advance care planning
3. Inform how family physicians can better have advance care planning conversations with their patients

#### Description:

**Context:** Advanced care planning is a process where people plan for a time when they cannot make health related and personal decisions for themselves. Advance care planning is important as up to 76% of people will not be able to make some or all of their medical decisions at the end of their lives. **Objective:** The objective of this research project is to determine people's preparedness, preferences and perceptions about enablers and barriers in advanced care planning. This will inform family physicians how to better have these advance care planning conversations with their patients. **Design:** Survey sent out to Queen's Family Health Team (QFHT) employees via email. **Setting:** Academic Family Medicine Health Team. **Participants:** QFHT employees. **Main outcome measures:** Preparedness, Preferences and Perceptions about enablers and barriers for advance care planning. **Results:** Majority of survey respondents (54%) have not participated in advance care planning for themselves. A large proportion (40%) of survey respondents did not know who their substitute decision maker or medical power of attorney is. Majority of participants (63%) have not spoken to their substitute decision maker or medical power of attorney about their end of life wishes. Majority of survey respondents (76%) would like to participate in advance care planning when they are healthy. They would like to initiate these discussions with their loved ones (88%) or family physicians (12%). However, it is also important to note that no participants had engaged in an advance care planning discussion with their family physician. Furthermore, majority of survey respondents (61%) would prefer their family physicians to bring up the topic. Several barriers and enablers of advance care planning were identified both generally and in family medicine. **Conclusion:**

Family physicians should be bringing up conversations of advance care planning routinely and should have these conversations with young and healthy patients.

### 343 **AI in Mental Healthcare for Adolescents: Scoping review**

Pooria Ghadiri\*, MD; Laura Pinkham, MA; Gauri Sharma; Perry Adler, PhD;  
Genevieve Gore, MSc; Mark Yaffe, MD CM, MCIsc, CCFP, FCFP;  
Samira Rahimi, Eng, PhD

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Obtain preliminary knowledge about AI
2. Obtain knowledge on application of AI in adolescents mental health care
3. Recognize what has been done in this area and what are the knowledge gaps

#### **Description:**

**Objective:** Identify Artificial Intelligence (AI) interventions tested/implemented in adolescents' mental healthcare. **Background:** Given the increasing prevalence of mental health conditions among adolescents, early intervention and appropriate management are needed to decrease morbidity and mortality. The potential contributions of AI in this context have not been studied. **Design:** A systematic scoping review was conducted according to the Arksey and O'Malley framework. Risk of bias of predictive models was assessed using the prediction model risk of bias assessment tool. **Setting:** Healthcare setting. **Participants:** Adolescents (age 10-19) and healthcare providers delivering mental healthcare to adolescents. **Results:** An information specialist searched five electronic databases from inception date until February 2020 and retrieved 1044 papers. After removing duplicates, articles were screened by two independent reviewers based on title and abstract (level 1) and full text (level 2). Thirty studies were included for data extraction. The most frequently used AI methods were Support-Vector Machines (n=10), Neural Networks (n=6), Gaussian Mixtures and k-means (n= 6). Ten studies specified the mechanism of AI delivery software as the most frequently used (n=6). AI was used for the prediction (n=19), diagnosis (n=12), screening (n=1), prognosis (n=1), disease monitoring (n=1), treatment approaches (n=1), and clinical management (n=1) of mental healthcare among adolescents. Some papers used AI for multiple purposes. AI was most commonly used in Autism Spectrum Disorder and Psychological Stress/Pressure Level in adolescents (n=6), followed by Substance Use Disorder and Dysfunctional Behavior in Adolescents (n=4). The most frequently used AI performance metric was "Accuracy," (n=20) and it ranged from 71-100%. The risk of bias for predictive AI models was the lowest in the participants' (19%=high risk; 11%=unclear risk) and the highest in the analysis category (37%=high risk; 63%=unclear risk). **Conclusion:** More research is required regarding the development and implementation of AI systems in the care of adolescents' mental health.

### 370 **bSTI Testing Interventions Among Toronto gbMSM: E-Delphi study**

Anna Yeung, MSc, PhD; Ryan Lisk, BA; Jayoti Rana, BSc, MPH;



Charlie B. Guiang\*, MD, CCFP, FCFP; Jean Bacon, BA; Jason Brunetta, MD, CCFP;  
Mark Gilbert, MD, MHSc, FRCPC; Dionne Gesink, BSc, MSc, DPhil;  
Ramandip Grewal, MPH; Michael Quag, BA; Carmen H. Logie, MSW, PhD;  
Leo Mitterni; Rita Shahin, MD, FRCPC; Darrell H. Tan, MD, FRCPC, PhD;  
Ann Nn Burchell, MSc, PhD

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Produce consensus on primary care interventions with greatest potential for improving bSTI testing for gbMSM
2. Describe primary care testing interventions with potential for improving bSTI testing rates in gbMSM
3. Recognize differences between Community and Provider Experts on bSTI testing interventions using an E-Delphi method

### **Description:**

**Background:** More than ever, innovative bacterial STI Testing interventions are needed to increase the rate of testing in gbMSM. With potentially less access to testing due to a global pandemic, we must identify preferences, both in the community and providers, to encourage bSTI testing in a primary care or sexual health clinic setting. Clinical guidelines recommend at least annual and quarterly sexually transmitted infection (STI) testing among sexually active men who have sex with men (MSM), including those on HIV PrEP or in HIV care. We built consensus around interventions to improve local STI testing services for MSM in Toronto using a web-based “e-Delphi” process. **Methods:** We recruited Experts for a Community Panel (MSM who sought/underwent STI testing in the preceding 18 months, conducted 09/2019-11/2019) and a Provider Panel (offered STI testing to MSM in the past 12 months, conducted 02/2020-05/2020). Experts prioritized 6-8 potential interventions, generated from a literature review, on a 7-point Likert scale over 3 survey rounds. Consensus was defined as  $\geq 60\%$  within a  $\pm 1$  response point. Summaries of panel responses were given in successive rounds. **Results:** Among Community Experts, 43/51 (84%) completed all rounds; 19% HIV-positive, 37% HIV-negative on PrEP, 42% HIV-negative not on PrEP. The highest-rated interventions were Client Reminders, Routine and Express testing, citing convenient testing while also maintaining a relationship with their provider (Table 1). Priorities did not differ by HIV status or PrEP use. Among Provider Experts, 37/48 (77%) completed all rounds; 59% were physicians. Highest-rated interventions were Online-based, Express and Nurse-led testing, citing streamlined processes and decreasing the need to see a provider (Table 1). **Discussion:** Both panels were enthusiastic about innovations that make STI testing more efficient. However, Community Experts preferred convenient interventions that involved their provider while Provider Experts favoured interventions that prioritized patient independence and reduced patient-provider time.

### **307 Cannabis and Older Adults**

**Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe the reality of cannabis use for older adults in Canada
2. Describe concerns regarding cannabis use and older adults reported by clinicians
3. Describe how to access the CCSMH accredited e-learning modules for family physicians

**Description:**

Cannabis consumption among older adults has been accelerating at a much faster rate than other age groups. Cannabis use is often not part of a standard assessment by physicians and older adults do not always report their cannabis use. To determine current knowledge, confidence and awareness of cannabis use and older adults CCSMH distributed a needs assessment survey. Target audiences included physicians, nurse practitioners, other healthcare providers, healthcare students, older adults and caregivers to older adults. CCSMH received over 1500 survey responses in Fall 2020. 238 clinicians with the authority to prescribe / authorize cannabis completed the needs assessment (68 family physicians, 126 specialists and 43 nurse practitioners). 89% were aware of older adults in their practice using cannabis but only 42% had ever prescribed, authorized or recommended cannabis to their older patients. 39% of clinicians responded that they agreed or strongly agreed that they feel they have sufficient knowledge to address older patients' and caregivers questions about cannabis. The most common reported reasons for medical cannabis use by older adults were related to pain, sleep and anxiety. 51% reported that they had spoken to their healthcare provider about cannabis and that 41% of the time their healthcare provider was unable to answer their questions. 45% of older adults who use cannabis indicate that they get information from the internet, 40% get information from their doctor. Common areas of concern regarding cannabis and older adults reported by clinicians include interactions with medications, acute and chronic effects and intoxication/impairment. 70% of respondents indicated that they would be interested in attending an accredited online course to learn more about cannabis and older adults. CCSMH will launch free MOC and MainPro+ accredited e-learning modules in Fall 2021.

**281 COVID-19 Positivity Among People Experiencing Homelessness in Toronto**

Esther Rosenthal\*, MD ; Amy Craig-Neil, MSc; Paul Das, MD, MSc; Joel Lockwood, MD; Ri Wang, MMath; Nikki Nathanielsz; Carolyn Snider, MD, MPH; Stephen W. Hwang, MD, MPH; Tara Kiran, MD, MSc

**Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Assess whether people experiencing homelessness are more likely to test positive for COVID-19
2. Compare percent of cases detected with outbreak versus surveillance testing
3. Understand what individual factors are associated with COVID-19 test positivity among residents of Toronto shelters

### **Description:**

People experiencing homelessness are thought to be at higher risk of acquiring SARS CoV-2 as well as more vulnerable to COVID-19 complications. However, there has been little Canadian research elucidating test positivity among people who are homeless and what factors influence positivity. Our poster seeks to highlight the vulnerability of people experiencing homelessness to COVID-19. Study design includes a chart audit of records from the St. Michael's Hospital COVID-19 Assessment Centre including records from the main testing centre and mobile outreach testing conducted between April and July, 2020. Chi-square testing is used to compare demographics, comorbidities, symptoms and test positivity between people who are homeless and those who are not. Logistic regression analysis was used to estimate the odds of testing positive for covid-19 in these two groups. We found that people who were homeless had 2.4 greater odds of testing positive for COVID-19 even after adjusting for age, sex, and the presence of any medical co-morbidity. We found high positivity rates in shelters where there was at least one known positive case (outbreak testing). People without a health insurance card at the time of testing and those who reported not visiting another shelter in the last 14 days were more likely to test positive for COVID-19. People experiencing homelessness are at high risk of COVID-19, and specific factors including not having health insurance or not visiting another shelter in the last 14 days may represent additional risks for COVID-19. Our findings suggest that targeted efforts are needed to reduce transmission rates in this population. Our findings also support testing of asymptomatic shelter residents for COVID-19 when a positive case is identified at the same shelter, however suggest limited utility of testing all shelter residents for pure surveillance.

### **389 Exploring Successful Implementation of Team-Based Care**

Madelyn daSilva\*, BHSc; Vaidehi Misra, BHSc; Shannon Sibbald PhD

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Understand the processes and challenges of program scale-up and expansion
2. Learn how to support the scale-up and sustainability of team-based care
3. Appreciate the role and function of context within interprofessional team-based care

### **Description:**

**Context:** Integrated models of team-based care have become more common in primary care settings across Canada and are recognized as necessary to effectively manage complex chronic diseases, such as COPD. However, little is known on how to support the

scale-up of successful models. **Objective:** The objective of this study was to explore the mechanisms that enable continued growth and sustainability of integrated models of team-based care in chronic disease management. **Design:** We conducted a case study to explore the expansion of an integrated team-based model of care within primary care. Data collection involved a focus group, interviews, and 'implementation logs' called living documents. This study was conducted as a QI initiative and did not require the approval of ethics. **Setting:** We explored a COPD management program within primary care settings across Southwestern Ontario. The program is delivered through trained Respiratory Therapists and is aimed to improve patient outcomes for those with COPD. **Participants:** This case study focused on the perspective of healthcare providers. Living documents were distributed to providers at nine sites that recently implemented the program. These providers then participated in a focus group. Finally, primary care providers that worked alongside the program participated in phone interviews. **Main outcomes measures:** This study aimed to understand mechanisms that facilitate this growth and expansion in order to improve patient outcomes, provider satisfaction, and support more efficient care. **Findings:** The COPD management program was successfully implemented into various primary care sites. We identified three processes integral to implementation: evidence-based, high-quality program, and readiness to implement. Additionally, we identified five factors influencing implementation. The interplay between these processes and factors across implementation phases allowed us to develop a framework. **Conclusions:** These findings can be used to support implementation and expansion of the program and other chronic disease management programs.

### 367 Community Driven Prioritization of Primary Care Access Research

Tanvir C. Turin, MBBS, Ms, PhD; Sarika Haque, BSc; Nashit Chowdhury, MBBS; Fahmida Yeasmina, MSc; Mahzabin Ferdous, MBBS; Ruksana Rashid, MBBS, MSc; Nahid Rumana, MBBS, Ms, PhD; Nafiza Rahman, MSc; Afsana Rahman, MBBS; Mohammad Lasker, MBBS; Mohammad Chowdhury, MSc

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Learn about community engaged research
2. Present community driven research prioritization
3. Discuss the equitable primary care access challenges

#### Description:

**Background:** Immigrants to any new host country have higher levels of unmet health needs, face considerable barriers to accessing primary health services, and experience poorer quality and continuity of care. Research around probable solutions to immigrants accessing healthcare in Canada is not extensive, and the perspective of immigrant communities on priorities and potential solutions has not been captured effectively.

**Objective:** This study aimed to seek input from an immigrant community in Calgary, Canada, regarding primary care access research priorities. **Methods:** Members of the

Bangladeshi community of Calgary were asked to rank 10 predefined primary care access topics as to what they felt constituted priorities for solution-oriented research (1, highest; 10 lowest). **Results:** The research team, including the community scholars and citizen researchers, developed a survey encompassing the research priorities asserted by the Bangladeshi-Canadian community members in the consultation process. We received 432 responses: 51.2% female; 58.9% aged 36-55; 90.5% had university-level education; 46.2% immigrated to Canada between 10-19 years ago; 82.5% employed full/part time or self-employed. Lack of resources, lack of knowledge, healthcare cost, and workplace-related barriers were among the top-ranked topics identified as solution-oriented research priorities. The primary care access topic “lack of resources” was ranked as 1st priority by 35% and 2nd priority by 19% of respondents. The overall relative weighted ranking of the topics “Lack of Resources”, “Lack of Knowledge”, “Healthcare Cost”, and “Workplace-Related Barriers” were the top-ranked topics by both men and women. **Conclusion:** Through partnerships and reciprocal learning, public input can increase insider perspectives to help develop interventions that align with the needs of community members.

## 276 Improving Post-Hospital Discharge Care in Primary Care Clinics

Sisi Li, MD, CCFP; Susanna Fung, MD, CCFP, FCFP; James D. Carson, MD, CCFP, FCFP; Tasneem Kassam, MD, CCFP; Randall T. Lee, MD, MEd, CCFP, FCFP; Roubiya Mohamed, MD, CCFP, FCFP; Irene Polidoulis, MD; David Wheler, MD, CCFP, FCFP

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe a feasible approach for improving post-hospital discharge care led by community family physicians
2. Discuss effective change ideas that lead to improved post-hospital discharge care for patients
3. Explore the opportunity to improve primary care via a community of practice

### Description:

**Context:** Timely outpatient follow-up has been associated with decreased hospital readmission rates and healthcare spending. **Objective:** To improve primary care provider (PCP) follow-up within 2 weeks of hospital discharge for 80% of patients from 8 community family medicine practices by February 16, 2020. **Design:** Quality improvement project. **Setting:** 8 community-based family medicine practices associated with the Scarborough Health Network. **Participants:** Patients discharged to home after hospital admission. The sample size was between 58-72 patients per data collection cycle. **Intervention:** The first change idea involved administrative staff phoning each patient post-hospital discharge to determine whether an in-office follow-up visit was needed using a standardized telephone script. The second change idea involved placing posters in offices to encourage patients to follow-up post-hospital discharge. **Main outcome**

**measures:** Percentage of patients receiving a follow-up appointment in person with their PCP. **Process measures:** percentage of patients contacted by outreach phone calls, percentage of medication reconciliations completed, and patient satisfaction with the calls. **Balance measures:** readmission rates within 1 month of discharge and team workload. **Results/findings:** PCP follow-up visits increased from a baseline of 47.22% to 56.90%, then to 63.33% with the 2 interventions. Medication reconciliations increased from 31.94% to 48% after both interventions. Readmission rates within 1 month of discharge initially decreased then increased again, although still below baseline. Patient satisfaction with the calls was high and staff reported the majority of the calls as easy. **Conclusion:** Earlier medication review and accurate medication lists after discharge would likely decrease potential medication errors and improve patient safety. Our project demonstrated a way that telephone assessment may be used to provide care post-hospital discharge. Since this project was completed prior to the Covid-19 pandemic and routine virtual care, it gave us a preview of the role that telephone contact can play in the care of our patients.

### 353 Integration of Clinical Pharmacists into Family Medicine Clinics

Iqshvaku Mishra\*; Lisa Bishop, PharmD; Michelle Levy, MD, MCISc, CCFP

#### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Recognize the limited integration of clinical pharmacists in family medicine in Newfoundland and Labrador (NL)
2. Describe five themes associated with pharmacist integration in academic family clinics in St. John's, NL
3. Recognize the importance of further development of the Patient's Medical Home model in NL

#### Description:

**Context:** The collaborative relationship between family physicians (FPs) and pharmacists has evolved considerably in many parts of Canada, demonstrating benefits to patient care. In Newfoundland and Labrador (NL), there is limited integration of clinical pharmacists in family medicine (FM), with the Memorial University of Newfoundland academic FM clinics in St. John's, NL being the only example of explicit integration. **Objective:** To identify the experience of academic FPs on the integration of clinical pharmacists. **Design:** Qualitative study using a phenomenological approach. **Setting:** The three academic FM clinics in St. John's, NL. **Participants:** FPs at the academic FM clinics in St. John's, NL. Purposeful sampling was done to identify two participants from each clinic. **Intervention:** Data was collected using semi-structured in-depth interviews. Interviews were audiotaped and transcribed verbatim. Transcriptions were reviewed by all investigators independently and then analyzed together in an iterative and interpretive manner. **Main outcome measures:** Themes emerging from the qualitative analysis. **Findings:** Five key themes were identified: independent health care professional, teaching, communication, collaboration,

and accessibility. As independent health care professionals, pharmacists independently assessed and managed patients, and were leaders in research. Teaching was both formal and informal teaching, encompassing the practicing physicians as well as multidisciplinary learners of all levels. In-person communication was the preferred method, with other forms such as messaging through the electronic medical record, text or phone calls still being evident. Collaboration was found to lead to a greater appreciation of the pharmacist's role and was seen as improving patient care goals. The accessibility to pharmacists was the biggest barrier to promoting the collaborative relationship.

**Conclusion:** As the Patient's Medical Home model continues to grow throughout NL, the findings of this study can be used to advocate for the increased integration and collaboration of clinical pharmacists into family medicine clinics in the province.

### 331 Palliative Care Impact on Resource Use at End-of-Life

Nureen Sumar\*, Madalene Earp, Desiree Hao, Aynharan Sinnarajah

#### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe Palliative Care use patterns in decedents of lung cancer
2. Explore risk factors for aggressiveness at end-of-life
3. Examine the association between palliative care use and aggressiveness at end-of-life

#### Description:

**Background:** Early utilization of specialist palliative care\* (SPC) in cancer patients may reduce healthcare resource use, aggressive interventions, and costs at end-of-life. We evaluated the impact of SPC on healthcare resource utilization and aggressive interventions at end-of-life in patients who have died from lung cancer. **Methods:**

Descriptive and multivariable logistic regression analyses were conducted on lung cancer decedents in the Calgary Zone, Alberta Health Services from 2008 to 2015. The primary exposure was timing of SPC (Early: receipt of SPC  $\geq 90$  days before death; Late:  $< 90$  days before death; No SPC). The primary outcome was end-of-life healthcare resource use (defined as any of: hospital death,  $> 1$  emergency department visit,  $> 1$  hospital admission,  $> 14$  days of hospitalization,  $\geq 1$  intensive care unit admission,  $\geq 1$  new chemotherapy program (or any chemotherapy in the last 14 days of life) in the 30 days prior to death.

**Results:** There were 3300 patients of which the majority (51.6%) of decedents were male. More female versus male lung cancer decedents (36.4% vs 28.7%) received early SPC. After adjusting for confounders, a strong association was found between early, late or no SPC and end-of-life healthcare resource use (OR<sub>no exposure</sub> 3.25 (95% CI 2.41-4.40) vs OR<sub>late exposure</sub> 2.44 (95% CI 2.03-2.92) compared to those with early SPC;  $p < 0.001$ ). Males had 1.53 the odds of aggressive care at end-of-life compared to females ( $p < 0.001$ ). Stratified analysis by sex revealed a strong association between the absence of SPC utilization and end-of-life healthcare resource use. Young age ( $< 50$  at death) was a strong driver of aggressive care at end-of-life in females versus males [OR 5.44 vs 2.53].



**Conclusions:** Early SPC was significantly associated with less end-of-life healthcare resource use in both male and female lung cancer decedents, with less early SPC use in males. \*Specialist Palliative Care includes: family physician and specialist care by palliative care consult teams, palliative home care, hospice, intensive care unit (ICU) and pain and symptom control clinic

#### **404 Patient Experiences With Virtual Care Appointments During COVID-19**

Rachelle Ashcroft, PhD; Simone Dahrouge, PhD; Simon Lam, MSW, RSW;  
Sally Abudiab, MSc; Judith Belle Brown; PhD; Catherine Donnelly, MSc, PhD;  
Bridget Ryan, PhD; Jennifer Rayner, PhD; Amélie Boudreault, MSc; Sandeep Gill, MSc;  
Jean Grenier, PhD; Lisa Dolovich, PhD; David Verrilli, MD, CCFP;  
Kavita Mehta, RN, MBA; Samantha Manewitz, MA, LICSW; Javed Alloo, MD, CCFP

##### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe qualitative methods used to understand patients' experiences virtual appointments in primary care
2. Differentiate benefits and challenges of virtual appointments in primary care as identified by patients
3. Explain patients' recommendations for the future of virtual appointments in primary care

##### **Description:**

**Objective:** The purpose of this study is to understand the experiences and expectations of primary care patients as they navigate the sudden shift from in-person care to synchronous virtual care (telephone and video appointments) during the COVID-19 pandemic, and make recommendations for strengthening and sustaining patient-centric virtual care delivery. **Design:** Mixed method design developed in partnership with patients and knowledge users. We report on the semi-structured interviews conducting virtually and exploring patient experiences across five key dimensions of care: i) access, ii) patient-provider exchanges, iii) privacy and confidentiality, iv) whole person care, and v) perceived quality of care. All individuals with at least one synchronous primary care virtual encounter since the start of the COVID-19 pandemic were eligible. Significant efforts were made to recruit participants across the province. Thematic analysis guided data analysis. **Setting:** Ontario, Canada; inclusive of all types of primary care models. **Participants:** N=55, Participants lived across all five Ontario Health regions including (West, Central, Toronto, East, North). **Findings:** Patients reported positive experiences with access, privacy and confidentiality, and feeling understood when there is a strong pre-existing relationship. Improvements needed for sustaining virtual care included advanced preparation for appointments; scheduling systems; using virtual care for appropriate concerns, provider communication, and creation of practice guidelines and standards. Patients report that scaling up virtual care can have benefits for patients, providers, and the healthcare system. **Conclusion:** Based on the positive experiences reported by patients,

we recommend that synchronous virtual care should remain available in primary care following the COVID-19 pandemic.

#### **405 Patient Recommendations for Virtual Care in Primary Care**

Simone Dahrouge, PhD; Rachelle Ashcroft, PhD; Kiran Saluja, PhD;  
Simon Lam, MSW, RSW; Jennifer Rayner, PhD; Bridget Ryan, PhD;  
Catherine Donnelly, MSc, PhD; Judith Belle Brown; PhD; Sandeep Gill, MSc;  
Jean Grenier, PhD; Lisa Dolovich, PhD; David Verrilli, MD, CCFP;  
Kavita Mehta, RN, MBA; Javed Alloo, MD, CCFP

##### **Learning objectives:**

##### **At the conclusion of this activity, participants will be able to:**

1. Describe the experience with telephone and video encounters in primary care during COVID-19
2. Identify whether these experiences vary by individual profile or type of encounters
3. Make recommendations for the role of synchronous virtual care in family practices

##### **Description:**

**Objective:** To understand patient experience with telephone and video appointments in primary care, and elicit recommendations for the future of virtual care in family medicine.

**Design:** Patient survey co-developed with stakeholders was implemented from February-March 2021 and widely promoted through social media, patient and caregiver organizations, and practices to their patients. **Eligibility:** Individuals with at least one virtual primary care encounter. Patient experience scales scores (12/17 questions for telephone/video) were derived using a 5-point Likert scale responses (strongly disagree(1) to strongly agree(5)) to statements about technology, patient-provider relationship, quality of care, and whole-person care. Contrasting virtual care with past in-person encounters was elicited using a 5-point likert scale responses (very true(5) to just the opposite(1)).

**Setting:** Ontario (Canada). **Results:** 534 eligible respondents: 402/18/14 had telephone/video/both. 75%/46% of telephone/video encounters were with the family physicians vs other health professionals. Patient experience was extremely positive; scores were (telephone/video): Overall: 90%/91%, technology: 97%/93%, patient-provider relationship: 93%/94%, quality of care: 87%/87%, and whole-person care: 77%/81%. To date, the only factor associated with lower patient experience was having <1 year relationship with their provider. Contrasting the two modalities, participants reported virtual care saved time: 97%/97% and money: 81%/85%, and was more convenient: 91%/91%. Patients reported concerns for telephone/video relating to privacy-confidentiality: 13%/18%, involvement in self-care (8%/9%), and shorter encounter duration (11%/8%). Respondents overwhelmingly favoured maintaining access to virtual care post-COVID, most recommending at least an equal mix of virtual (69%tel/71%video) and in person visits. Only 5% did not want any future virtual care. **Conclusion:** Patient had largely very positive experience with virtual care and the vast majority recommended maintaining access to that modality in the future. We continue our analyses to identify the

patient population or reasons for visits that are most appropriate for virtual care, although the very high scale scores is limiting.

## 291 Virtual Primary Care in a Pandemic Environment

Alexander Singer\*, MB, BAO, BCh, CCFP; Gayle Halas, RDH, MA, PhD;  
Leanne Kosowan, MSc; Lisa LaBine, MSc; Daniel Shenoda, BSc;  
Alan Katz, MBChB, MSc, CCFP, FCFP; Alanna Baldwin, BN, MEd, PhD;  
Elissa Abrams, MD, FRCPC

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe virtual care visits by primary care providers in MB, Canada
2. Recognize patients that are more likely to access virtual care
3. Interpret the management of primary care in the first 3 months of the pandemic

### Description:

**Objective:** To describe and characterize virtual care (VC) visits by primary care providers to patients following the introduction of the virtual care tariff code in Manitoba, Canada.

**Design:** Retrospective cohort study. **Setting:** Primary care clinics that participate in the Manitoba Primary Care Research Network (MaPCReN), a practice-based network that contains de-identified EMR data from 265 primary care clinicians, providing care to 288,000 Manitobans. **Participants:** All encounters with a primary care provider participating in MaPCReN between 01/01/18 and 06/30/20. **Outcome measures:** Tariff codes from billing records between 03/14/20 and 06/30/20 determine the visit type (clinic visit, virtual visit). Patient (sex, age, comorbidities, visit frequency, medication rates) and provider (sex, age, clinic location, provider type, remuneration model, country of graduation, return visit rate) characteristics describe the study population based on visit type. Generalized estimate equation models describe factors associated with VC. **Results:** There were 201,995 encounters with a primary care provider, with 37.8% of encounters provided virtually. Canadian medical graduates and salaried providers have 3x high odds of billing for VC compared to international graduates (OR 3.36, CI 1.78-6.35) and fee-for-service providers (OR 2.99, CI 1.84-4.87). Female patients (OR 1.13, CI 1.06-1.21) with  $\geq 3$  comorbidities (OR 3.5, CI 2.72-4.61),  $\geq 10$  medications (OR 2.7, CI 1.85-3.95) have significantly higher odds of VC than male patients, with no comorbidities and no prescriptions. Follow-up visits were required for 21.2% of VC encounters; the majority (55.9%) had the same visit type. For follow-up encounters where the visit type changed, 42.2% of clinic visits were followed by VC, whereas 26.9% of VC was followed by a clinic visit. **Conclusion:** During the first 3 months of pandemic restrictions, VC bridged care for patients with chronic conditions and appears suitable for follow up consultations. Gaining a broader understanding of health providers' and patients' reported experiences of VC requires further analysis.

## 346 Previvor Experience: Genetic testing and gynecologic risk-reducing surgery

Alicia Tone\*, PhD; Talin Boghosian; Elisabeth Baugh; Cailey Crawford

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Understand the patient experience of genetic testing for ovarian cancer risk genes
2. Understand the patient experience of risk-reducing surgery for ovarian cancer prevention
3. Understand gaps in the care of previvors and the role of family physicians

### **Description:**

**Purpose:** To understand the experience of previvors who have undergone genetic testing (GT) and/or gynecologic risk-reducing surgery (RRS) in Canada, to identify gaps and opportunities for advocacy. **Methods:** A 10-question anonymous online survey was open from October-November 2019, followed by 1-on-1 semi-structured interviews between June-September 2020. **Results:** Responses were received from 61 previvors (N=42 surveys and 19 interviews) from 7 provinces. Interviewees included women with mutations in BRCA1, BRCA2 and BRIP1. Most (79%) interviewees had undergone GT within the past 5 years and 74% had completed RRS. Interviewees had a family history of ovarian (74%) and/or breast (84%) cancer, and 16% noted a personal history of breast cancer. Among all respondents, 51% and 31% considered GT based on recommendation from a relative or healthcare provider. Only 28% had spoken with their family doctor about their family history prior to GT. During pre/post-test counselling, previvors were generally satisfied with explanations provided on estimated lifetime cancer risk for themselves or relatives (72-87%) and strategies for risk reduction (78%). Fewer previvors had a satisfying discussion on the psychosocial impact of GT (52%) and how to communicate GT results to relatives (38%). During pre-surgical consultations, many were satisfied with explanations provided on the best time to have surgery (72%), what to expect during recovery (64%) and potential risks/side effects of surgery (62%), but not post-surgical options for hormonal treatments (38%), reducing impact on bone and/or cardiovascular health (33%) and fertility/reproductive options (7%). Most RRS procedures were performed by gynecologist/obstetricians (76%) and 82% had ovaries and fallopian tubes removed. While 71% had RRS prior to 50, only 42% of interviewees had RRS by the recommended age based on their mutated gene. **Conclusion:** Feedback from Canadian women at risk for ovarian cancer has identified gaps in communication with family doctors, during pre/post-test counselling and pre-surgical consultation.

### **374 Primary Care Engagement in Health System Change**

Michael Sergio Taglione\*, MD; Judith Belle Brown, PhD

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe the common barriers in engaging primary care physicians

2. Identify effective strategies to overcome barriers to engagement
3. Recognize the gaps in the current literature regarding primary care engagement

### **Description:**

**Context:** The complexity of health systems necessitates coordination between a multitude of stakeholders to enact meaningful change. Primary care physicians are a crucial partner to engage, as their investment and participation are critical to the success of any system-level initiative. Despite the importance of engaging primary care physicians in health system change, best practices do not exist. **Objective:** The aim of this scoping review is to identify common barriers, effective strategies, and knowledge gaps when engaging primary care physicians in designing and implementing health system change. **Design:** A scoping review was performed. A literature search was performed in March 2020 using five databases. 668 unique articles were identified and underwent a title and abstract review. 23 articles met criteria for full text review and 10 met final inclusion criteria. A reference review identified two additional articles. 12 articles underwent data extraction and thematic analysis. **Results:** Several barriers to engagement were identified including a lack of trust and poor relationships, strong professional physician identity, clinically irrelevant proposals, lack of capacity and supports, and lack of financial incentivization. Described strategies to overcome these barriers included building trust and relationships, contextual engagement strategies, working with physician leadership, enabling open communication channels, designing clinically relevant initiatives, and considering financial incentives. **Conclusions:** Barriers to primary care engagement should be addressed with contextually designed strategies with a focus on relationship building, collaborative efforts, and implementing relevant and feasible initiatives. Further research should explore how to best develop relationships with primary care, working with collective voices of primary care physicians, and to better understanding the impact of financial incentives on engagement.

### **314 Primary Care for People Experiencing Homelessness During COVID-19**

Janhavi Patel\*; Annabel Grant; Rahat Hossain, MD; Mary Keith, PhD;  
Karl Stobbe, MD, CCFP

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Identify tools to assess primary care quality among people experiencing homelessness
2. Understand the perceptions of quality for primary care delivered during the COVID-19 pandemic
3. Explore potential ways to improve the quality of primary care delivered to people experiencing homelessness

### **Description:**

**Context:** People experiencing homelessness have poor experiences and perceptions of healthcare which may negatively affect access to care. This situation may be exacerbated by the COVID-19 pandemic and the accompanying changes to healthcare delivery for this population. **Objective:** We primarily aim to understand the perceptions of people experiencing homelessness who accessed primary care during the COVID-19 pandemic. Our secondary aim is to compare quantitative and qualitative methods to establish the external validity/generalizability of a short-form questionnaire. **Design:** This study uses a mixed methods convergent design. This study has been approved by the Hamilton Integrated Research Ethics Board (HiREB #10713). **Setting:** The study will be conducted across three shelter health clinics in the Niagara region of Ontario, Canada. **Participants:** Adults (18 years and older) experiencing homelessness. **Main outcome measures:** We will administer the 12-item Primary Care Quality-Homeless (PCQ-H) questionnaire and conduct semi-structured interviews. Quantitative measures will include means, medians, and standard deviations for each of the questions. We will perform thematic analysis for the qualitative interviews. **Results/findings:** We anticipate generating insight into the perceptions of people experiencing homelessness who have accessed a transformed shelter care network during the COVID-19 pandemic. We will demonstrate descriptive results along four factors of primary care quality relevant to homelessness, including relationships with providers, perceived cooperation among providers, ease of access/coordination, and other homelessness-specific needs. The interview arm of the study will add rich detail and lived experience to colour and contrast the survey results. **Conclusion:** COVID-19 has required a profound rethink of healthcare delivery and none have been more affected than people experiencing homelessness. This marginalized population must be front and centre in efforts to recalibrate primary care for a post-pandemic future. Understanding their perceptions will be key to partnership and improving our efforts together.

### 330 Primary Care Providers' Reflections on Truck Drivers' Health

Jennifer Johnson\*, MD, CCFP, MCISc; Amanda L. Terry, PhD;  
Evelyn Vingilis, PhD, CPsych

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the health risks of transport truck driving, the most common occupation for Canadian men
2. Describe the trucking work environment and its impact on the health of long-haul drivers
3. Recognize how being responsible for completing drivers' medicals impacts the patient-primary care provider relationship

#### Description:

**Objectives:** 1. To describe the reflections of primary care providers on the work and health experiences of long-haul truck drivers; 2. To explore the experiences of these

providers in caring for long-haul truck driver patients. **Design:** Focus groups using descriptive qualitative methodology **Setting:** Urban and small towns in central and southwest Ontario **Participants:** Sixteen family physicians and nurse practitioners currently practicing primary care in Ontario **Methods:** Three in person, in-depth, semi-structured focus groups were audio recorded and transcribed verbatim. These data together with reflective memos and field notes were analyzed by the research team after each interview using descriptive qualitative methodology. **Findings:** Analysis of the focus groups offered insights into the challenges family physicians and nurse practitioners face in providing patient-centred care to their long-haul truck driver patients. Two themes emerged from the analysis. “The world of long-haul truck drivers is unknown” reflected the participants’ lack of familiarity with the context of their patients employed as long-haul truck drivers. The second theme, “the elephant in the room”, represented the ever-present influence of the Ministry of Transportation of Ontario (MTO) that oversees licensing of truck drivers. Participants believed that the MTO affects which health concerns truck drivers can safely discuss with their primary care provider. **Conclusion:** This study suggests that patient-centred care might be enhanced if family physicians and nurse practitioners better understood the work environment and health risks of their patients who work as long-haul truck drivers. It also suggests that primary care providers struggle to reconcile their dual responsibilities of assessing fitness to drive and providing patient-centred care to their truck driver patients. Designating occupational examiners to determine fitness to drive may allow nurse practitioners and family physicians to provide much needed primary care to this at risk occupational group.

### **308 Primary Care Tools Supporting Young Adult Cancer Survivors**

Alexandra Ginty\*, MD, FCFP, CCFP(EM); Jessica Kitchen, MSc; Tanya Flanagan, MA; Marell Tomeh; Laura Burnett, MPH

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe the AYA tools for primary care providers to better support AYA cancer survivors
2. Identify three of the top concerns among AYA cancer survivors
3. List three resources available to support AYA cancer survivors post-treatment needs

#### **Description:**

**Objective:** To change the primary care approach to survivorship care with adolescent and young adult (AYA) cancer survivors using patient-centric tools. **Design:** Quantitative and qualitative survey of AYA cancer survivors. **Setting:** In the spring of 2020, a group of AYA cancer survivors responded to an online survey about what they wished they had of asked their primary care provider (PCP) after treatment but did not. **Participants:** A total of 50 AYA cancer survivors, 15 to 39 years of age, completed an online survey in English or French. **Main outcome measures:** The purpose of the survey was to hear directly from AYAs about their post-treatment experiences and needs, and gain insights into their



interaction with primary care. **Findings:** Qualitative analysis of the survey identified several key areas of focus for PCPs in the care and support of AYA cancer survivors. AYAs want their PCPs to be proactive in helping them understand and manage their health after completing cancer treatment. Supporting mental health and connecting them to resources and supports were identified as important. AYAs want their PCPs to know more about their cancer experience and its potential side effects and complications, particularly the unique challenges that AYA cancer survivors face including concerns with fertility, sexual function, returning to school/work, and post-cancer screening care. Two clinical tools were developed to enable PCPs to support AYA cancer survivors. The tools are customizable to allow for the inclusion of local resources and supports, as well as those offered by Young Adult Cancer Canada, the Canadian Cancer Society and Cancer and Work. **Conclusion:** PCPs play a pivotal role in post-treatment survivorship care. Patient-centric clinical tools aimed to increase awareness about the unique needs of AYA cancer survivors and available resources will enable PCPs to support their AYA cancer patients' successful return to life and work.

### **322 Procedure to Manage Overcapacity in Closing Emergency Departments**

Douglas Neal, MB, BCh, BAO

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Identify challenges with patient management in closing emergency departments
2. Describe the implementation of overcapacity protocol in a community hospital emergency department
3. Evaluate the safety of patient redirection from emergency departments after triage

#### **Description:**

**Context:** Some emergency departments (EDs) face a defined closure time which can result in processing capacity issues to manage all patients before department closure. Cobequid Community Health Centre ED (CCHC ED) closes daily at 2400. There is no inpatient or observational capacity so all patients must be discharged from the facility at close. An Over Capacity Procedure (OCP) was developed to redirect patients to alternative care options after triage assessment, when a defined capacity limit was met. **Objective:** The purpose of this study was to evaluate the safety of the OCP and the impact on other local EDs. **Design:** A retrospective quality review of patient outcomes for the study period was performed. This study used administrative data supplemented by structured chart review to study all patients managed by the OCP. Data from ED information system and horizon patient folder were used. **Setting:** CCHC ED, Halifax, Nova Scotia from June 1, 2015 to December 31, 2015. **Participants:** Patients managed by OCP. **Main outcome measures:** Our primary outcomes were number of 72-hour return admissions and deaths. Secondary outcomes included number of days OCP initiated, number of OCP patients assessed by EP and number of patients presenting to other EDs. **Results:** A total of 316 patients were managed by OCP which represents 5% of daily registrations on days implemented. OCP

was used 53 days (21%) in the study period. A total of 41 patients presented to other zone EDs with 5 patients being admitted. There were no deaths identified. The average number of patients affected per day of OCP implementation was 6 with a maximum of 18 patients one day. **Conclusions:** An OCP with redirection of selected patients can effectively and safely manage patient volumes that exceed patient processing capacity before closure. These findings have potential application to other EDs facing closure.

### 348 Provision of First Trimester Medical Abortion in Canada

Madeleine Ennis\*, PhD; Regina Renner, MD, MPH, FRCSC, FACOG;  
Edith Guilbert, MD, MSc, CCFP, FCFP; Wendy V. Norman, MD, MSc, CCFP, FCFP;  
Helen Pymar, MD, FRCSC, MPH; Sheila Dunn, MD, MSc, CCFP, FCFP

#### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Explore first trimester medical abortion provision in Canada
2. Discuss the adoption of mifepristone for first trimester medical abortion
3. Recognize the recent increase in number of first trimester abortion providers in Canada

#### Description:

**Objective:** In 2017, mifepristone became available to physicians and nurse practitioners (NPs) for first trimester medical abortion (FTMA). Abortion clinical practice guidelines were also updated. Our objective was to explore FTMA provision in relationship to these changes. **Methods:** We conducted a national, self-administered, cross-sectional survey of physicians and NPs who provided abortion services in 2019 in Canada. This online bilingual survey collected demographics, volume of abortion services and their geographic distribution, and characteristics of FTMA clinical care. It was distributed extensively through health professional organizations and networks, using a modified Dillman technique to maximize participation. Using descriptive statistics, we characterized the workforce and clinical practices. **Results:** We recruited 478 participants between July and December 2020, of whom 403 provided FTMA. The highest proportions of FTMA respondents were in Ontario (35.5%) and British Columbia (19.9%). Physicians (n=372) and NPs (n=31) reported respectively providing 14,291 and 329 FTMA. The majority of responding FTMA providers were family physicians (62.3%), women (86.4%), and practiced in clinical settings outside of hospitals (62.4%). Sixty-one percent of FTMA providers reported having less than 5 years experience and 43.9% of respondents provided FTMA using telemedicine. Eighty percent of respondents used exclusively a mifepristone/misoprostol regimen while the remaining also used methotrexate some of the time. Sixty-three percent required a pre-procedural ultrasound in all patients. However, most respondents provided FTMA without a lower gestational age limit (58.9%). Ninety-five percent provided up to 70 days gestation or less. Mifepristone/misoprostol was most commonly dispensed at community pharmacies (90.4%). **Conclusion(s):** The workforce included many new providers. Among respondents, mifepristone FTMA was widely

adopted. Respondents followed current guidelines. Understanding workforce and care variations across Canada will inform knowledge translation activities to further support family physicians to implement FTMA into their clinical practice in order to improve equitable access to abortion care in Canada.

### **351 Urban Versus Rural Canadian Abortion Services in 2019**

Madeleine Ennis\*, PhD; Regina Renner, MD, MPH, FRCSC, FACOG;  
Edith Guilbert, MD, MSc, CCFP, FCFP; Sheila Dunn, MD, MSc, CCFP, FCFP; Claire Styffe;  
Wendy V. Norman, MD, CCFP, FCFP, MHSc

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Compare the urban and rural Canadian abortion workforces
2. Compare urban and rural Canadian abortion clinical care
3. Describe geographical differences in surgical and medical abortion care in Canada

#### **Description:**

**Objectives:** In recent years, Health Canada has approved mifepristone for first trimester medical abortions (FTMA), clinical practice guidelines for medical and surgical abortions were updated, and the number of abortion providers in Canada increased. In light of these changes, our objective is to compare the urban and rural Canadian abortion workforce and clinical care in 2019. **Methods:** We conducted a national, self-administered, anonymized, cross-sectional survey of physicians and nurse practitioners (NPs) who provided abortion services in 2019. This online survey was available in English and French, and included sections on demographics and characteristics of clinical care. The survey was distributed through health care professional organizations and networks using a modified Dillman technique to maximize participation. Participants were classified as urban versus rural based on Statistics Canada defined census metropolitan area. We characterized the urban and rural workforces and their abortion services. **Results:** Between July and December 2020, 478 participants (447 physicians and 31 NPs) were recruited, representing all territories and provinces within Canada. Most respondents were located in urban areas (61.1%). Most responding physicians were family physicians (57.3%; urban 52.5%; rural 66.5%) and general obstetrician-gynecologists (31.1%; urban 30.8%; rural 31.1%). NPs were mostly rural (61.3%). FTMA was provided by 75.3% and 82.5% of urban and rural respondents, respectively; while second trimester medical abortion was provided by 31.2% and 13.7%. Lastly, 86.8% and 88.0% of urban and rural respondents provided first trimester abortion care; while 45.8% and 19.1% provided second trimester abortion care. **Conclusions:** First trimester abortion services were available in both urban and rural areas, while second trimester services were more frequently offered in urban areas. Understanding the distribution of the abortion workforce and care and the impact of mifepristone approval will inform knowledge translation activities to increase access to high-quality abortion services.

## 410 Real World Concussions – Real world recoveries

Megan Ogle, MSc, Mec Eng, EIT; Calla Isaac, BSc; Ann-Marie Przyslupski, MSc;  
Constance Lebrun\*, MDCM, CCFP(SEM), FCFP, FACSM

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Understand timely concussion recovery may be different than currently accepted in literature
2. Understand recovery includes symptom reduction, return to cognitive and physical participation
3. Understand that a pragmatic approach to physiotherapy may assist recovery at all concussion injury phases

### Description:

**Context:** Concussion management requires normalized body function and return to participation (RTP; cognitive/physical). **Objective:** To compare patient injury characteristics and RTP rates to recovery timeframes. **Design:** Retrospective chart review (01/09/2016-31/08/2018). ARISE approved the study ethics at the University of Alberta. **Setting:** Community physiotherapy clinic. **Participants:** 234 patients with concussion (age: 8-85 years; male: n=85; female: n=149) from various mechanisms of injury (MOIs). Age groups (years): children 8-12, youth 13-17, young adult 18-29, adult 30-64, senior 65+. Injury phases (IP; time-to-assessment): acute (<72 hours), subacute (72 hours-2 weeks adults, 72 hours-4 weeks children/youths), persistent (2 weeks-3 months adults, 4 weeks-3 months children/youths), chronic (>3 months). **Intervention:** Multimodal physiotherapy (cervico-vestibular, exertion, education), referral to specialist physician, psychology and/or neuropsychology. **Main outcome measures:** Treatment (number, weeks), weeks to recovery (WTR), difference in total symptom severity (TSS), RTP. **Results:** Recovery timelines were shortest in children (10.64 weeks, 95% CI [4.92, 16.37]) and longest in seniors (43.35 weeks, 95% CI [20.03, 66.68];  $p<0.05$ ). WTR for young adults (28.03 weeks, 95% CI [18.51, 37.55]) and adults (37.00 weeks, 95% CI [29.62, 44.37]) challenge literature timeframes. Females received more treatment (females:  $8.60\pm6.61$  treatments over 13.88 weeks, 95% CI [11.46, 16.29]; males:  $6.56\pm5.69$  treatments over 8.71 weeks, 95% CI [6.48, 10.94];  $p<0.05$ ). Motor vehicle collision yielded the longest MOI treatment ( $12.28\pm8.21$  treatments over 20.95 weeks, 95% CI [17.03, 24.88];  $p<0.05$ ). Treatment was longest for chronic IPs (children/youths 16.17 weeks, 95% CI [11.60, 20.74]; adults 19.46 weeks, 95% CI [13.78, 25.14];  $p<0.05$ ). TSS decreased in 85% of patients. Full cognitive RTP was achieved by 75% of patients, and full physical RTP by 68%. **Conclusion:** Concussion patients experienced symptom and participation recovery. Patients experienced longer recovery and RTP timelines compared to current literature. Our results will help expand the generalizability and implementation of pragmatic physiotherapy interventions for concussion care management.

## 357 Senior's Quality of Life in Harm Reduction Housing

Megan Sampson, MA; Blessing Punungwe, PhD; Martina Kelly, MBBCh, PhD, CCFP; Lara Nixon, MD

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe how senior residents in a harm reduction facility co-designed a survey with researchers
2. Appraise advantages and disadvantages of using validated tools, relevant to older people's needs
3. Identify care needs impacting quality of life for seniors living in a harm reduction facility

### **Description:**

**Context:** Older people experiencing homelessness and substance use challenges, represent a growing population in addiction services. Harm reduction (HR) housing targeting the complex medical needs of these seniors is poorly understood. **Objective:** To inform service planning, this study assessed self-reported quality of life (QoL) and care needs of older people living in permanent HR accommodation in an urban setting.

**Design:** Quantitative survey, participatory action research **Methods:** Setting: 68-bed supportive living facility providing personal and health supports for men and women aged 55+, with ongoing substance use challenges. Residents worked with researchers to develop a survey tool. The final tool consisted of 68 items including validated tools exploring self-reported health status, QoL, service use, substance use, demographics and housing history. All residents were eligible to participate. To support residents participation, residents completed the survey with the help of one of the research team. Descriptive statistics are presented. **Results:** Thirty-four participants (50% of residents) participated; mean age 66 years, (75% male). Participants reported mobility issues (65%); moderate-extreme pain (62%); moderate-extreme depression or anxiety (47%). Despite good access to mental health care, only 24% indicated receiving mental health care in the past 6 months; 82% of participants smoked, 35% had problematic alcohol use and 15% used drugs other than alcohol. Only 41% were satisfied with how they spent their time and 50% experienced loneliness several times a month or more. **Discussion:** Despite active managed alcohol and tobacco programs, residents experienced a range of physical and mental needs, similar to those of many older people. HR for older people needs to integrate care for addiction with good clinical care, with particular attention to mobility, mental health, pain management and social activities. **Conclusion:** Engaging older adults in the design of health and social services through purposeful needs assessment can help inform service development.

### **386 Sex and Socioeconomic Deprivation Modifies Pediatric Blood Pressure**

Susan Telencoe\*, MD, Leanne Kosowan, MSc, Alexander Singer, MB BAO BCh, CCFP; Allison Dart, MD, MSc FRCPC

## Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the effect of sex as a risk factor for pediatric high blood pressure
2. Describe the association between material and social deprivation for pediatric high blood pressure

## Description:

**Context:** High blood pressure (HBP) is common in pediatric populations and leads to adverse outcomes in adulthood. The effect of sex and sociodemographic factors on pediatric hypertension is uncertain. **Objective:** We evaluated sex differences and sociodemographic associations in children with HBP. **Design:** Retrospective, cross-sectional study. Ethics approval was obtained. **Setting:** Data the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) repository derived from primary care electronic medical records in 7 Canadian provinces, from 1180 practices. **Participants:** Inclusion criteria comprised individuals with at least 1 blood pressure recorded after January 1, 2010 and before their 18th birthday. Exclusions included pediatric chronic kidney disease prior to age 18 or missing data such as birthdate, height or weight. **Outcome measures:** HBP was defined based on 2 separate measurements > 90th percentile for those <13 years old, or >120/80 for those aged 13-18. Differences in age, sex, BMI, diabetes, hyperlipidemia and depression and deprivation quintile were examined. **Results:** A total of 85880 youth were included. The prevalence of HBP was 8.6% in males and 6.7% in females ( $p<0.0001$ ). Children with HBP tended to be younger at their first BP measurement (age 10.56 vs. 10.80 years,  $P<0.0001$ ), have increased BMI Z-score (0.66 vs. 0.24,  $P<0.0001$ ), live in deprivation (17.9 vs. 15.9%,  $P=0.0013$ ) and have diabetes (1.44 vs. 0.54%,  $P<0.0001$ ), depression (7.46 vs. 5.06 %,  $P<0.0001$ ) and hyperlipidemia (3.01 vs. 1.00 %,  $P<0.0001$ ). A multivariate regression demonstrated that suggested male sex predicted HBP. Material deprivation was only significant in the univariate analysis after controlling for other risk factors. **Conclusion:** Male sex is an independent risk factor for HBP in Canadian children in primary care settings. This study also suggests an association between material deprivation and HBP, particularly in boys. Further study is required to understand this relationship.

## 316 Survey to Determine Patient Eligibility for Assisted Dying

Kim Colangelo\*, MD, CCFP; Sarah Baillie; Caleb Zelenietz, MD, FRCPC, MSc

## Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Be able to describe the new criteria for medical assistance in dying
2. Understand how severity of medical conditions can impact eligibility for assisted dying
3. Understand the differences in opinions between different types of practitioners regarding eligibility for assisted dying

## Description:

**Objective:** The aim of this study is to determine the opinion of medical practitioners on the severity of several common medical conditions (Chronic obstructive pulmonary disease, Congestive heart failure, Frailty, and Multiple Sclerosis) that would meet the threshold of reasonably foreseeable natural death (RFND) in order for a medical professional to deem the patient eligible for medical assistance in dying (MAiD). **Design:** An opinion-based survey was administered virtually July – October 2020. Participants were contacted through e-mail, with a link to the survey. **Setting:** Participants were recruited from Clinical Departments, Email list serves, MAiD departments, and the Canadian Association of MAiD Assessors and Providers (CAMAP) across Canada. **Participants:** A total of 1989 individuals from 107 different departments were contacted, including nurses, nurse practitioners, and physicians. **Findings:** Out of the 338 participants that completed the survey, 49.4% identified as MAiD clinicians. Stratified by occupation, 19.6% of the participants were nurses, 8.6% were nurse practitioners, and 71.7% were physicians. Respondents that identified as MAiD providers expressed a lower disease burden threshold qualifying the patient for a RFND. Non-MAiD providers were more likely to answer that a condition does not qualify, ranging from 2-8% of responses. **Conclusion:** A minority of respondents think any severity of illness could qualify. There were differences in average non-MAiD respondent answers from MAiD respondents' answers. MAiD providers choose lower disease severity as qualifying for RFND than non-MAiD providers, across all conditions. Within groups, specific levels of disease severity had the majority of responses.

### 325 Survey: Supporting cancer survivors with return to work

Christine Maheu\*, RN, PhD; Maureen Parkinson, MSc Ed

#### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Increase knowledge on cancer survivors return to work
2. Increase understanding on how to support cancer survivors with return to work
3. Increase understanding of resources available to support cancer survivors with return to work

## Description:

**Objective:** Obtain PCP input on training needs and resources used to support cancer survivors with return to work **Design:** Online survey, open-ended inquiry on needs and resources to support cancer survivors with return to work. An advisory group composed of five family physicians, rural and urban, and two nurse practitioners help construct the survey. **Participants:** Over 60 PCP completed the survey from family physicians, rural and urban, and nurse practitioners. Also, an advisory group composed of the above help construct the survey. **Main outcome:** Share how the survey results informed the development of the e-course for primary care providers to support cancer survivors with

return to work. **Results:** 60 PCP's responded to the survey and identified the following needs for the e-course content: the need for knowledge and communication about treatment, follow-ups and effects of cancer over time; treatment guidance for managing symptoms and psychological concerns; knowledge of vocational rehabilitation; better understanding of workplace demands; how to assess fitness to return to work; and knowledge of resources to assist with RTW of survivors. The Canadian bilingual Cancer and Work website ([www.cancerandwork.ca](http://www.cancerandwork.ca)) was identified as a helpful resource.

**Conclusion:** The survey results helped target the specific needs of PCP for training to support cancer survivors with return to work to be incorporated in the e-course, which will be available by September 2021 through Cancer and Work.

## 297 TeleDermatology for Family Physicians in Rural British Columbia

Catherine Lim\*; Nathan Teegee, MD; Meghan Donaldson, PhD;  
Neale Smith, MA, MEdes; Craig Mitton; Neil Kitson, MD, FRCPC, PhD

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe one form of telemedicine in dermatology; list some benefits and limitations
2. Recognize consults appropriate for the dermatology telemedicine service
3. Be able to prepare logistics for and consult a dermatology telemedicine service

### Description:

**Objective:** Our aim was to measure the utilization and impact of a dermatology telemedicine model initially designed for rural British Columbia (BC) family physicians.

**Design:** Quality improvement analysis plus one-on-one interviews with family physician users. **Setting:** Communities in remote and rural BC. **Participants:** One-on-one interviews

were conducted with 45 primary care practitioners who used the consultation service at least once between May and December 2020. **Intervention:** We implemented a

dermatology telemedicine consultation service. Primary care providers in rural BC requested a new consult or follow up with a dermatologist in Vancouver through any combination of phone, text, teleconference, or image transfer. Patient charts were held by a central Electronic Medical Record system (MedAccess). Privacy and confidentiality standards conformed to BC legislation for "public bodies" (Freedom of Information and Protection of Privacy Act). **Main outcome measures:** (1) Experiences of family physician users. (2) Patient or consult data. (3) Potential cost savings to a patient. Results and

**Findings:** This service was launched at the beginning of the COVID-19 pandemic and used throughout rural BC. There were over 400 consults. Overall, it received encouraging comments from the 45 physician users surveyed. Description of the service usage and its barriers will be discussed. Potential cost savings, including travel costs and employment losses to the patient, will be presented. **Conclusion:** This quality improvement project on a rural telemedicine service evaluated family physicians' experiences and dermatology consult data trends. Thus far, our results show that such a service is possible and



beneficial to patients and primary care practitioners in rural and remote communities. Next steps include analysis of patient outcomes and health care cost savings.

### **381 Transitional Pharmaceutical Care Services for Older Adults**

Philippe Imbeault\*; Geneviève Ricard; Louise Mallet; Rolande Poirier; Suzanne Gosselin; Marie-France Langlois; Mylaine Breton; Caroline Sirois; Mélissa Lessard-Beaudoin; Julie Teasdale; Jean-Philippe Turcotte; Benoit Cossette

#### **Learning objective:**

**At the conclusion of this activity, participants will be able to:**

1. Demonstrate the key factors in successfully implementing a transition of care model

#### **Description:**

**Context:** The World Health Organization released in 2017 its third Global Patient Safety Challenge, Medication Without Harm which includes Transitions of care (TOC) as one of three key action areas. **Objective:** To assess the feasibility of implementing a pharmacist-led TOC model in three regions of Quebec with contrasting contexts of care. **Methods:** Recruited patients in this multicentre, single arm, prospective cohort were hospitalised in Magog, Sherbrooke or St-Hyacinthe and followed in seven FMG and 25 participating community pharmacies. Inclusion criteria were based on medication use, presence of chronic conditions and frequent healthcare use. In the TOC model, the hospital pharmacist in collaboration with the hospital physician developed a pharmaceutical care plan transferred at hospital discharge to the FMG and to the patient's community pharmacist. Feasibility evaluations included types of and time required for interventions. **Results:** 142 patients (59% of targeted sample) were recruited from September 2019 to March 2020 when the study was halted due to the COVID-19 pandemic. Of those, 123 patients (mean age: 79 years; 63% female) were discharged with a pharmaceutical plan. The most frequent inclusion criteria were  $\geq 10$  medications and one high-risk medication (73%) and  $\geq 15$  medications (60%). The most frequent Rx modifications were initiation followed by cessation. The pharmaceutical care plan template was adapted differently in the 3 regions. The pharmacists' interventions in the hospital took a mean of 165 min., in the FMG 30 min. and in the community pharmacies 50 and 25 min. for the first and subsequent visits, respectively. **Conclusion:** Our study demonstrated the feasibility of engaging hospital and community physicians and pharmacists in the proposed TOC model in multiple regions of Quebec with contrasting contexts of care with the appropriate resources and commitment from the health professionals.

### **306 Understanding Post-Traumatic Stress Disorder Using Electronic Medical Records**

Dhasni Muthumuni, BSc; Leanne Kosowan, MSc; Hasan Zafari, PhD; Farhana Zulkernine, PhD, PEng; Alexander Singer\*, MB, BAO, BCh, CCFP

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe PTSD prevalence in the Canadian primary care setting
2. Apply validated electronic medical record-based case definitions to describe patients with PTSD
3. Explain and interpret PTSD definitions and documentation in primary care EMR data

### Description:

**Objective:** To apply a validated case definition to the electronic medical records (EMR) of family physicians and nurse practitioners participating in the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) to identify and describe patients with post-traumatic stress disorder (PTSD). **Design:** Retrospective cohort study. **Setting:** This study accessed de-identified EMR from 1,574 primary care providers participating in the CPCSSN. **Participants:** All patients with at least one visit to a primary care provider participating in the CPCSSN between January 1, 2017 and December 31, 2019 (N = 689,301). **Outcome measures:** We identified patients with PTSD and describe associations between PTSD and patient (sex, age, depression, anxiety, COPD, diabetes, hypertension, clinic location) characteristics using multivariable logistic regression models. **Results:** Among the 689,301 patients meeting inclusion criteria, 5,605 (0.81%) had PTSD. Patients with PTSD were significantly more likely to be female (62.2% vs. 56.2%), reside in an urban location (84.9% vs. 80.4%), and have one or more comorbid condition (94.8% vs. 67.9%) (p-value < 0.001). Patients with PTSD also had a lower mean age (46.9 years vs. 52.3 years) and a higher frequency of annual primary care visits (4.6 vs. 2.8) (p-value < 0.001). Multivariable logistic regression analysis revealed patients with PTSD had 5.74 times increased odds of having depression (95%CI: 5.38-6.13), 2.49 times increased odds of having anxiety (95%CI: 2.35-2.64), 1.88 times increased odds of having COPD (95%CI: 1.7-2.08), and 1.42 times increased odds of having diabetes (95%CI: 1.3-1.55).

**Conclusion:** This study is the first to use EMR data to describe PTSD prevalence in a Canadian primary care setting. Characterizing patients with PTSD in primary care may improve disease surveillance and help inform the care and treatment options available for patients with PTSD.

## Work-In-Progress

### 400 Exercise Prescription App for Family Medicine – Work-In-Progress

Michael Edgar, DC; Deborah Kopansky-Giles\*, DC, FCCS, MSc; Cameron Lambert; Rajesh Girdhari, MD, MBA, CCFP (AM); Lisa Miller; Willem McIsaac, MScPT, MScCH; Rhea Monteiro, MScPT; Lee M. Schofield, MD, CCFP (SEM) Dip Sport Med; Anser Abbas, DC

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe an open-source exercise prescription application for use in primary care
2. Describe the results of pilot testing of the exercise prescription application

## **Description:**

**Context:** Musculoskeletal disorders (MSDs) are the leading cause of disability globally and a frequent reason for patients attending their family physicians. Exercise is efficacious in the treatment and management of MSDs however the prescription of individualized exercise programs for patients is difficult for primary care practitioners. To help improve the prescription of exercises and increase utility by department providers, an exercise prescription app was developed, and pilot tested in our family medicine department.

**Objectives:** 1. To evaluate utility of the exercise prescription application for use by primary care practitioners; 2. To evaluate usefulness of the exercise prescription app from the perspective of patients

**Design:** The application was created utilizing a quality improvement approach, with pre-testing feedback by a small group of providers, followed by pilot testing. Pilot testing included questionnaire feedback completed by both providers and patients.

**Setting:** Unity Health Toronto, St. Michael's Hospital Academic Family Health Team (AFHT)

**Participants:** AFHT health professionals and patients who received an exercise prescription through the application.

**Intervention:** An exercise prescription application was developed and embedded in the department's internal website to facilitate provider prescription of individualized exercise programs to patients. Team members pre-tested and provided feedback. The app was then finalized for pilot testing through use by a broader group of department health professionals who were trained in its use. Questionnaires were distributed to pilot testers and patients who received the exercise prescriptions through this app.

**Outcomes:** Using a QI approach, the application was iteratively created, pre-tested by a small group of providers (two chiropractors, two physiotherapists, one family physician) with a plan for pilot testing by a larger group of AFHT health professionals. **Conclusion:** The application pre-testing was completed in April 2021. Pilot testing is planned for initiation in May 2021 through to July 2021.

## **289 Two-Eyed Seeing: Indigenous cultural safety – Work-In-Progress**

Joyce Zazulak\*, MD, CCFP, FCFP; Lorrie Gallant, Indigenous Expressive Arts Practitioner; Nicole Knibb, BA, MDes; Laura Cleghorn, MA; Amy Montour, MD, CCFP

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Importance of Two-Eyed Seeing in Cultural Safety Programs
2. Identify essentials components of Indigenous Cultural Safety
3. Examine the importance of experiential learning

## **Description:**

**Objective:** The Indigenous Teaching Through Art (ITTA) Program was designed to cultivate foundational understanding of the historical realities and cultural impact of the residential school system on the experiences of Indigenous peoples. This necessary learning will enable faculty and staff in McMaster University's Department of Family Medicine to care for, teach, and support Indigenous patients, students, and colleagues.

**Design:** The ITTA Program was evaluated via reflexive thematic analysis of qualitative data gathered from focus group, individual interviews and questionnaires with healthcare providers. The team engaged in a Two-Eyed Seeing approach to inductively and deductively analyze the data. This study is exempted from McMaster University (HiREB) ethics approval. **Setting:** The Mohawk Institute and Woodland Cultural Centre, Brantford, Ontario. **Participants:** Health care providers from the McMaster Family Health Team participated in 4 focus groups with 13 participants and 3 one-on-one interviews. Thirty-two participants (of a total 64) submitted responses to a questionnaire with 4 open-ended questions. **Intervention:** ITTA is a full-day program co-designed by Indigenous and non-Indigenous members of our department and an Indigenous artist and expressive arts practitioner. Cultural and historical knowledge, art creation and reflective practices guided learning about residential schools in Southern Ontario and Canada. **Findings:** Major themes that emerged from thematic analysis of our program were: 1) the importance of experiential learning; 2) the importance of reflective practice in changing attitudes and awareness; 3) reflective practice enabled participants to make meaning from their experience; 4) meaning making was necessary to taking action **Conclusion:** Our program evaluation demonstrates that experiential learning has impacted participants' foundational understanding of the historical realities of Indigenous peoples in Canada and repercussions of traumatic history. Experientiality supports reflective practices and meaning making, aligns with Indigenous Ways of Knowing and illuminates best practices in caring for, teaching and supporting Indigenous patients, students, and colleagues.

## **280 Educating Prenatal Individuals to Exercise – Work-In-Progress**

Danielle Lewis\*; Sabrina Kolker, MD, MSc, MA, CCFP

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Recognize the benefits and safety of exercise during pregnancy
2. Describe the impact of an educational tool on improving exercise understanding and habits during pregnancy

### **Description:**

**Objective:** To develop a video education tool and evaluate its effectiveness at improving pregnant individuals' attitudes regarding the safety of exercise during pregnancy. **Design:** A literature review was conducted to analyze current guidelines and existing educational resources regarding exercise safety in pregnancy. Following review, an evidence-based exercise safety in pregnancy video was developed and piloted to ensure it was clear and comprehensive. Upon Research Ethic Board approval, a cross-sectional pre/post survey design will be employed. Participants will complete a survey early in their first trimester of pregnancy to assess their baseline habits and attitudes towards exercise in pregnancy. Then, they will be given access to the video educational tool. At twenty weeks gestational age the participants will complete a second survey to assess for changes in their exercise safety beliefs and habits potentially stemming from the intervention. **Setting:** Participants

will be recruited from the Academic Family Health Team at Mount Sinai Hospital in Toronto, Ontario. **Participants:** Low-risk pregnant patients attending their first prenatal appointment. A convenience sample will be used to obtain a sample size of 30 patients. **Intervention:** A 10-minute YouTube video informing patients on the safety and benefits of exercise in pregnancy designed by the research team. **Main outcome measures:** Participant attitudes towards exercise safety during pregnancy, knowledge of current guidelines, and their exercise habits before and after watching the video. Results: Pending upon study completion estimated for June 2021. **Conclusion:** Based on the findings, this study will determine whether the educational video helps increase participants' awareness of the safety of exercise during pregnancy and alleviates their safety concerns. This may inform what types of patient educational material we use in the future and whether increased patient education about exercise safety in pregnancy should be incorporated into current prenatal practice.

### **342 Family Physician Willingness/Preparedness to Work During COVID-19 – Work-In-Progress**

Rachel Walsh\*, MD, MSc, CCFP; Deanna Telner, MD, MEd, CCFP, FCFP;  
Debra Butt, MD, MSc, CCFP, FCFP; Paul Krueger, PhD;  
Karen Fleming, MD, MSc, CCFP, FCFP; Sarah MacDonald, MPH; Aakriti Pyakurel, MPA;  
Liisa Jaakkimainen, MD, MSc, CCFP, FCFP

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Identify barriers/facilitators to family physicians' willingness and preparedness to work during the COVID-19 pandemic
2. Compare how the family physician pandemic response has changed since the SARS and H1N1 epidemics
3. Identify how willingness/preparedness to work are associated with volumes of healthcare visits and hospitalizations

#### **Description:**

**Context:** During the COVID-19 pandemic, family physicians in Ontario have had to quickly adjust how they provide clinical care. Switching to virtual care, fear of COVID-19 transmission, reliance on personal protective equipment, and increasing demand for care has had a profound impact on the clinical practices, personal lives, finances, and mental health of family physicians in Ontario. **Objective:** We aim to determine the willingness and preparedness of front-line family physicians in Ontario to provide clinical care during the COVID-19 pandemic. **Design:** We administered an online survey to Ontario family physicians that was distributed through 39 Ontario Health Team email lists and 3 online physician forums. We will compare survey responses to similar surveys conducted during the 2003 SARS and 2010 H1N1 epidemics. By linking survey responses to health administrative data, we will determine how willingness/preparedness to provide care are associated with volumes of healthcare visits and hospitalizations in Ontario. This study

was approved by the Sunnybrook Research Ethics Review board. **Setting:** Ontario, Canada. **Participants:** Practicing Ontario family physicians. **Main outcome measures:** Willingness and preparedness to work during the first wave of the COVID-19 pandemic (April-June 2020). **Preliminary Results/findings:** There were 458 responses to our survey, 400 of which met our eligibility criteria. 101 respondents (25.70%) were neutral or unwilling to provide in-person care during the first wave of the COVID-19 pandemic. Whereas 263 respondents (92.37%) were willing or very willing to provide virtual care. Only 135 respondents (36.29%) felt somewhat or very supported to provide in-person care, and 206 respondents (55.38%) felt somewhat or very supported to provide virtual care. **Conclusion:** This study will help inform future strategies for addressing surge capacity, pandemic preparedness and allocation of primary care resources in the community and will contribute to our understanding of incentives and barriers for providing care among Ontario family physicians.

### **310 Interest in Long-Term Care Practice – Work-In-Progress**

Jessica Lapointe\*, MD, CCMF; Marie-Victoria Dorimain, MSc;  
Marie-Josée Hotte, MD, CCMF (SPA); Geneviève Brassard, MD, CCMF (SPA);  
Mireille Luc, PhD

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Identify factors that motivate the choice of residents to orient their practice towards LTC services
2. Identify factors that constrain the choice of residents to orient their practice towards LTC services

#### **Description:**

**Context and objectives:** Despite population aging and the growing medical needs in first-line geriatrics, few physicians decide to direct their practice towards LTC facilities. Current data from the Canadian Medical Association shows that only 1.7% of family doctors choose LTC facilities as their primary practice. While the number of users of LTC services is expected to double by 2031, a shortage of general practitioners practicing in these facilities is to be expected. We inquired which factors might influence family medicine residents to include LTC in their practice. **Methodology:** A systematic review of the available literature was completed. MEDLINE, CINAHL and SCOPUS databases were used with keywords encompassing the following three themes: medical residents, family medicine and long-term care. The review was conducted by two independent reviewers. The inclusion and exclusion criteria have been revised by an external committee. Articles from 2005 and earlier were excluded. **Results:** Analysis is in progress in order to identify the main themes that influence the choice for this practice. The articles selected will provide insights into the interest and choice for LTC practice by family medicine residents including barriers and facilitators. **Conclusion:** This study on the interest of family medicine residents to practice in LTC facilities would therefore be relevant to suggest

avenues for reflection on solutions to increase residents' interest in this type of practice where demand will continue to grow. Ultimately, these avenues could help improve recruitment in this field of practice.

### **355 Management of COVID-19 Through Tailored Recommendations – Work-In-Progress**

Jean-Sébastien Paquette\*, MD, MSc, CCMF; Caroline Rhéaume, MD, PhD, CCMF; Christian Chabot; Marie-Pierre Gagnon, PhD; Andrée-Anne Parent, PhD; Maxime Sasseville, PhD; Ève Dubé, PhD; Christophe A. Fortin, PhD; Caroline Huot, MD; Matthew Menear, PhD; Alfred-Kodjo TOI; Angelo Tremblay, PhD; Vicky Drapeau, PhD; France Légaré, MD, PhD, CCFP

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Compare the impact of tailored recommendations vs general recommendations on preventive behaviors during the COVID-19 pandemic
2. Measure preventive behaviors during the COVID-19 pandemic
3. Evaluate the challenges for the researchers to regularly update the citizen platform information during the COVID-19 pandemic

#### **Description:**

**Context:** The COVID-19 and confinement have deleterious effect on citizen's health. People with chronic diseases are even more vulnerable as they are subjected to a higher risk of COVID-19 related complications. General recommendations issued by the public health departments (PHD) do not take into consideration the personal situation of every citizen and therefore do not provide a tailored guidance. **Objectives:** To evaluate if participants that received tailored preventive health recommendations will be more adherent to the general recommendations issued by the PHD. **Design:** Double-blind randomized controlled trial **Setting:** Université Laval secured citizen platform (PULSAR) **Participants:** Cohort of people aged 18 and over in the province of Quebec. **Intervention:** Tailored and general recommendations are delivered using a web-based portal (Vigie-COVID) that was co-developed in collaboration between various key players (citizens, patient partners, clinicians, researchers, decision-makers and representatives of the PHD). The intervention group received tailored recommendations based on the situation of participant and adapted to the COVID-19 status, the behavior risk associated to contamination, the risk of complications and the health risks related to confinement. **Main outcome measure:** Preventive behavior: mask wearing, social distancing, hand washing, daily fruit consumption, amount of daily sleep hours and number of weekly minutes of exercise. **Results/findings:** The expected results from this trial include: 1) Improvement in the rate of compliance with the PHD recommendations in the group receiving the tailored recommendations; 2) Improvement of the quality and the quantity of the COVID 19 epidemiological data available for population health research in the Quebec region; 3) Decrease in the load in clinics (self-diagnosis) **Conclusions:** Overall, the ultimate goal is to

obtain a global epidemiological portrait in order to identify the determinants and indicators of sustainable health and their impacts. After the pandemic, this might enable the implementation of a personalized monitoring of chronic diseases.

### **395 Patients With Complex Care Needs: eHealth literacy – Work-In-Progress**

Pierre Pluye\*, MD, PhD; Virginie Paquet, MLIS; Vera Granikov, MLIS ; Jiamin Dai, MIST; Fabio Balli, MA; Henry Hurtado, MA; Yannick Gervais, MA; Reem El Sherif, MSc; Quan Nha Hong, OT PhD; Roland M. Grad, MD, MSc; Tibor Schuster, PhD

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Name three principles of eHealth Literacy
2. Describe a website aimed at improving patients' level of eHealth Literacy
3. Appraise a mixed methods research protocol on primary care patients with complex care needs

#### **Description:**

**Context:** Community-dwelling patients with complex care needs (hereafter 'patients') seek, evaluate and use information to choose optimal care. However, patients with low eHealth literacy often have difficulty finding trustworthy information easy to read, listen to, or watch. Improving their eHealth literacy can: increase self-care, participation in care and health; decrease health problems, use and cost of services; and reduce inequalities.

**Objectives:** Describe the acceptability, ease of use, and drawbacks of a literacy intervention; Explain their benefits; Test the feasibility of a randomized controlled trial (RCT). **Design:** Mixed methods. A pilot has been approved by the McGill IRB.

**Intervention:** To help patients find, evaluate and use online health information (three principles of eHealth literacy), an innovative website (Online Health Information Aid: OHIA) and an educational entertaining video were created. Phase-one Quantitative. Feasibility study (stepped wedge): 100 low SES patients will be randomly assigned to four groups that receive the intervention in turn. Pre- and post-intervention data will be collected, and values of parameters to design an RCT estimated. Phase-two Qualitative. Multiple case study: The patients' experience with the intervention will be described with a purposeful sample of phase-one 30 participants. Cases will be their recent searches for online health information. Cases will be identified using 'journey mapping' and 'critical incident' techniques. For each case, data will be collected from interviews, observations and documents. **Thematic analysis:** Participants' experience will be described in terms of acceptability, ease of use, benefits and potential harms; mechanisms of action and suggestions for improvement. Qualitative Comparative Analysis: Cases will be compared, and patterns of conditions explaining benefits identified. **Integration:** Quantitative and qualitative results will be integrated into a joint-display table to provide recommendations for improving the intervention and planning an RCT. **Results:** Pilot results will be reported at the conference.



### 324 Provider Attitudes Toward HBPC – Work-In-Progress

Lisa Palubiski\*, MD, MSc; Amanda Ramdya, MD, CCFP, MSc

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Examine provider attitudes toward HBPC
2. Examine the role of HBPC at a patient, provider, and health care system level
3. Examine perceived barriers and facilitators toward HBPC in a FHT

#### Description:

**Purpose:** The frail homebound older adult patient population is not well served by the standard office-based primary care model. Home-based primary care (HBPC) is an excellent modality to serve this vulnerable population; however, the uptake of HBPC within the primary care setting has been slow. **Design:** Qualitative study design **Setting:** McMaster Family Practice in Hamilton, Ontario **Participants:** Primary care providers, including nursing staff, allied health members, and resident and staff physicians (N = 14) **Main outcome measures:** To identify the perceived barriers and facilitators to HBPC at the level of the patient, provider, and health care system **Findings:** HBPC had a perceived positive impact at each the patient, provider, and health care system level. At the patient level, HBPC was felt to improve patient satisfaction and social isolation; however, could be perceived as intrusive into the patient environment. At the provider level, it was unanimous that home visits (compared to in-office visits) led to greater information gathering (e.g., to assess falls risk or safety concerns), improved patient-provider relationship, and greater provider satisfaction. Time and billing were mentioned as the main barrier. However at the clinic level, the multi-disciplinary teaching practice (which offered home visits as a learning opportunity to resident physicians) and the team based care model, both facilitated the integration of HBPC alongside in-office care to provide ongoing patient access. Although it's not known whether the benefits outweigh the cost, it was strongly felt that HBPC could improve accessibility to the healthcare system, avoid unnecessary ER visits and hospitalizations, and better provide continuous and comprehensive care to the frail homebound older adult patient population. **Conclusion:** A Family Health Team is well positioned to provide HBPC and should be included as part of an integrated delivery system to provide care frail homebound older adult patient population.

### 368 The Primary Care Network COVID-19 Integrated Pathway – Work-In-Progress

Fariba Aghajafari\*, MD, CCFP, PhD; Alyssa Ness, MD, CCFP; Lauren Bilinsky, MD, CCFP; Franco Rizzuti, MD; Brian Hansen; Kerry McBrien, MD, CCFP, MPH; Myles Leslie, PhD; Rick Ward, MD, CCFP; Jia Hu MD, CCFP, MSc, FRCPSC

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Explain benefits and challenges of close collaboration between Public Health, Primary and acute care
2. Identify barriers in providing wraparound care in clinical practice and community
3. Identify ways that collaborative models could be applied to areas outside of pandemic response

### **Description:**

**Context:** The last 20 years have seen increasing interest in Primary Care (PC) integration. Connecting family physicians with their counterparts in the broader health system to deliver wraparound patient care has become a major aim. The first wave of COVID-19 in Calgary, Alberta, Canada accelerated achievement of this goal, giving rise to the COVID-19 Integrated Pathway (CIP). Calgary and Rural Primary Care Networks (PCNs) led unprecedented collaboration between PC, acute care, and Alberta's Public Health and HealthLink telephone referral systems. Prior to the CIP, family physicians were unaware of patients' COVID status and could not provide follow-up care. **Objectives:** To evaluate the CIP; to describe facilitation of patient attachment to PCNs/family physician follow-up; to inform model refinement for up-scaling in response to future pandemic waves. **Design:** Mixed quantitative and qualitative study using administrative data, EMR data, and interviews. CHREB approval and CMA/FAFM COVID-19 Pandemic Response and Impact Grant funding received. **Setting:** Communities and PCNs in Calgary and surrounding areas. **Participants:** PCN executives, managers, community family physicians, acute care specialists, patients. **Intervention:** PCN COVID-19 Integrated Pathway (PCN-CIP), through which patients were attached to medical homes or their family physician for follow-up and continuity of care. **Main outcome measures:** Attachment to PCN/family physician; time from diagnosis to follow-up with PC; ED and acute care utilization; qualitative exploration of patient experience; quality and timing of relationships and communication flows; PCN, community family physicians, and staff experiences of pathway and workload, role clarity, system efficiency. **Findings:** Preliminary administrative data suggest increased patient attachment and follow-up after COVID diagnosis. Completion of 58 qualitative interviews highlights precursors to rapid collaboration and bidirectional information flow. **Conclusion:** Collaboration and improved bidirectional information flow between all partners shows potential to increase patient attachment to medical homes and reconnection to family physicians, especially patients at risk of poor outcomes.

### **399 Virtual Simulation in Residency Training – Work-In-Progress**

Robert McCarthy, MD; David Bradbury-Squires, MD, CCFP (EM); Jennifer Jewer, PhD; Michael Parsons, MD, CCFP (EM), FCFP

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe the views of Family Medicine residents toward Simulation-Based Training
2. Identify perceived barriers to offering Simulation-Based Training in a virtual learning environment

## Description:

**Context:** Simulation-based training (SBT) offers unique learning opportunities to residents, particularly for high-acuity scenarios not often encountered in practice. During the COVID-19 pandemic, learning opportunities for residents have largely shifted to virtual platforms, limiting exposure to SBT. With limited information available regarding trainees' perceptions of virtual SBT, this research may inform the design and implementation of such programs. **Design:** A survey was designed to explore residents' experiences with SBT and its perceived benefits and barriers when offered through in-person versus virtual formats. The survey included likert scale-based questions and written responses. This project was exempt from ethics review. **Setting:** Practice sites for Memorial University's Family Medicine (FM) residency program, including St. John's and rural communities throughout Newfoundland and Labrador, and Nunavut. **Participants:** FM residents at Memorial University. **Findings:** Overall, 28 residents (out of 70) completed the survey. 96% (27/28) had previously participated in SBT, with 68% (19/28) doing so over five times. 93% (26/28) of residents viewed SBT as being at least "moderately beneficial" for improving their medical knowledge and skills and 86% (24/28) of participants acknowledged being at least "somewhat likely" to participate in SBT in the future. Although in-person SBT was preferred, 61% (17/28) expressed interest in virtual SBT opportunities. Some perceived barriers to virtual SBT included inability to practice hands-on skills, limited feedback, and communication difficulties within teams. **Conclusions:** Residents view SBT as beneficial for learning and are interested in SBT opportunities offered virtually. The information gleaned from this survey will inform the development and implementation of virtual SBT for FM residents as part of a larger study examining the utility of this method. With limited in-person learning during the COVID-19 pandemic, this may address gaps in residency training. Furthermore, virtual offerings could prove useful for rural and remote regions, where access to SBT may be limited.

## FMF Posters

### 317 Assessing Dyspnea Using Virtual Care – Work-In-Progress

Tung Siu\*, MD, CCFP; Katarina Laketic; Jaling Kersen; Matthew Moher, MD, CCFP; James McCormack, PhD; Bobbi Bennett, RN; Anita Weng; Jillian Conway, MSc

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Critically appraise the role of the Roth Score in assessing dyspneic patients over telemedicine
2. Consider ways to adapt traditional clinical examination skills in assessing dyspneic patients over telemedicine
3. Understand the barrier in conducting primary care research during the COVID-19 pandemic

## Description:

**Context:** Dyspnea is a common symptom encountered in family medicine. Because of the COVID-19 pandemic, evidence-based tools to assist family physicians in virtually evaluating dyspneic patients are needed. The Roth Score was proposed in 2016 as an additional way to assess patients with dyspnea. It is simply the maximum number a patient can count up to in one breath and the time it took for the count. In the original study, the maximal count of <7 was 91% sensitive in identifying patients with SpO<sub>2</sub> <95%. However, experts recommended against using the Roth Score during the pandemic due to the lack of validation. **Objective:** To investigate the Roth Score's validity in assisting clinical decision-making for dyspneic patients over telemedicine. **Design:** Prospective observational study. The local research ethics review board has approved our study. **Participants:** Dyspneic patients presented to primary care clinics and COVID-19 assessment centres. **Main outcome measures:** Sensitivity of the Roth Score in identifying SpO<sub>2</sub> <95%; Correlation of the Roth Score to patient-oriented outcomes such as unplanned health care encounters and hospital admission at 7-10 days follow-up. **Results:** So far, we have 24 participants referred. Of those, sixteen participants completed the initial interview, but seven were lost to follow-up. Our participants ranged from 32 to 93 years old, and 65% were female. The maximal count and the time it took ranged from 22 to 30 and 7.6 to 17.0 seconds. The SpO<sub>2</sub> ranged from 93 to 99%. Three participants had additional unplanned health care encounters, but none were admitted to the hospital at the follow-up. **Conclusion:** While it is too early to draw conclusions, we are excited to share our concepts, lessons learned and preliminary results from our experience conducting a primary care-focused clinical research study during the COVID-19 pandemic.

## 277 Assessing Primary Care Panel Report Uptake in Saskatchewan

Emmett Harrison\*, BSc MD; Kevin Wasko, MA MD CCFP (EM) CCPE; Adam Clay, MSc

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Determine Saskatchewan physician's perceptions influencing uptake of Panel Reports as a quality improvement tool
2. Determine Saskatchewan physician's barriers influencing uptake of Panel Reports as a quality improvement tool
3. Determine Saskatchewan physician's potential facilitators for using Panel Reports as a quality improvement tool

## Description:

**Design:** The study is a combination of a questionnaire and follow-up qualitative descriptive data obtained from scripted interviews. **Participants:** In 2020, there were 20/42 family physicians in the former Cypress Health Region (South-Western Saskatchewan) that participated in the questionnaire, and 6 physicians, who previously obtained their Primary

Care Panel Reports (PCPR), provided a follow-up scripted interview. **Findings:** Family physician respondents had many negative perceptions and barriers of the Best Practice Team of Saskatchewan's PCPR regarding data quality, metrics, and process. However, the perceived utility of the report was high and respondents agreed with the specific objectives of the quality improvement resource as outlined by the Best Practice Team of Saskatchewan. **Conclusion:** The study itself increased the awareness and potential uptake of the PCPR in the former Cypress Health Region. The second iteration (2021) of the PCPR has addressed some of the negative perceptions and suggested facilitators identified by respondents. All feedback will be analyzed by the Best Practice Team for future improvement in the PCPR. Most notably, respondents from the interview demonstrated that practices are already using their electronic medical records (EMR) for queries that improve patient care. A focus on validating PCPR data with the more reliable EMR source may help improve data quality.

## 86 Cholinesterase Inhibitor Use in Palliative Care

Giulia-Anna Perri\*, MD, CCFP (PC) (COE); Jessica Wilson, MD, CCFP (COE); Sandra Gardner, PhD; Anna Berall, RN; Anne Kirstein, BScPhm, ACPR, RPh; Houman Khosravani, MD, PhD, FRCPC

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Appreciate the prevalence of dementia on a palliative care unit (PCU)
2. Become familiar of deprescribing cholinesterase inhibitors (CHEIs) in dementia on a PCU
3. Learn about the deprescribing patterns of CHEIs on PCUs

### Description:

**Objectives:** Current guidelines suggest that patients with severe dementia on cholinesterase inhibitors (CHEIs) should discontinue their CHEIs by taper. This study aims to define the prevalence of patients admitted to a palliative care unit (PCU) with dementia on a CHEI and to determine whether these patients were tapered off their CHEIs according to current deprescribing guidelines. **Design:** This is a descriptive retrospective chart review that examined patients admitted to a PCU with dementia on a CHEI from January 2015 to June 2019. **Methods:** Individuals admitted to the PCU with a primary or comorbid diagnosis of dementia were identified. Their corresponding CHEI dose, frequency and discontinuation pattern were identified. Data were analyzed using descriptive statistics. **Results:** A total of 36 patients were admitted to the PCU with dementia on a CHEI (prevalence of 2.3%). The median length of stay was 21 days. For 31 of these patients, their CHEI was discontinued, only 9 of which had a taper. Of the 24 patients who discontinued their CHEI suddenly, 10 patients had an order to discontinue their CHEI in the last 2 days before their date of death. **Conclusion:** This study suggests that although patients admitted to a PCU with dementia have their CHEI discontinued, the discontinuation was done without a taper. In many cases the CHEIs were continued

through the active stage of dying. Future work should explore reasons why PCU physicians are mostly late to taper CHEIs for patients admitted with dementia.

#### 413 Clinical Course of Acute Concussion and Post-Concussion Syndrome

Sheharzad Mahmood\*; Ann-Marie Przyslupski, MSc; Teresa DeFreitas, MD, CCFP (SEM); Constance Lebrun, MD CM, MPE, CCFP (SEM), FCFP, Dip. Sport Med.; Martin Mrazik, PhD, R.Psych

##### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the different presentations and symptomatology of acute concussion and post-concussion syndrome
2. Be aware of certain patient populations and characteristics at risk of progression to post-concussion syndrome
3. Recognize the family physicians role in early concussion diagnosis and referral for sports medicine consultation

##### Description:

**Background:** Concussions are classified as acute (<90 days to resolution) or post-concussion syndrome (PCS,  $\geq 90$  days to resolution). PCS poses a great burden to the individual and to public health. Further investigation is still warranted for understanding the progression of acute concussion to PCS and potential mitigating strategies. **Objective:** To contrast the presentation and recovery of acute concussion and PCS in order to identify factors for PCS prevention. **Design:** Retrospective chart review of concussion patients seen by Sports Medicine and Exercise Physicians at the Glen Sather Sports Medicine Clinic from January 2015-December 2019. **Participants:** 496 patients (289 male/207 female,  $19.7 \pm 9.4$  years) presented with 561 concussions in 1471 visits. **Outcome measures:** Demographics, wait-times, injury mechanisms, Sport Concussion Assessment Tool (SCAT) scores, management plans, and recovery timelines. **Results:** Acute concussions accounted for 88% of injuries and 12% were PCS. Females (RR=1.4) and adults  $\geq 25$  years (RR=3.6) were more likely to be diagnosed with PCS. In both, injuries occurred most commonly in hockey, football, and soccer. Family physicians were the most frequent referral provider (58% acute, 76% PCS). Median injury-appointment time was 11.0 days (acute) compared to 182.0 days (PCS). Initial total SCAT symptom score was significantly greater ( $p < 0.001$ ) in PCS ( $56.0 \pm 33.0$ ) compared to acute concussion ( $39.8 \pm 31.9$ ). Therapies (i.e. referral, medication, intervention) were prescribed in 44% of acute injury visits compared to 73% of PCS visits. Recovery timelines for return to work, school, and sport were significantly longer in PCS patients than in those with acute concussions ( $p < 0.05$ ). **Conclusions:** Our findings of the incidence and presentation of PCS agree with previous literature. However, continued efforts in injury prevention are needed for athletes who are female and/or older. Considering the number of referrals from family physicians, further concussion education may better optimize management, and shorten delays in seeking necessary sports medicine consultation.

## 352 Co-Designing Patient Safety Conversations in Long Term Care

Vivian Ewa\*, MBBS, CCFP (COE), MMEDED, FCFP; Jennifer Lee, MscOT, BSc; Abram Gutscher; Christopher Jones

### Learning objectives:

#### At the conclusion of this activity, participants will be able to:

1. Describe organizational characteristics which support proactive safety culture
2. Facilitate safety conversations between residents, families and staff by understanding their perspectives on safety
3. Apply prototypes to support safety conversations with staff, residents and families in different contexts

### Description:

**Objective:** At Alberta Health Services (AHS), current safety strategy is reactive in long term care (LTC). Our goal is to move to a proactive safety approach. Research in patient safety culture indicates that conversations on safety is critical for proactive strategy (Vincent, et al, 2013). **Design:** In Phase 1, a grounded theory approach was utilized. In Phase 2, design thinking methodology was used to co-design tools to enhance safety conversations between staff, families and residents in LTC. Ethics approval was not required as per ARECCI tool. **Participants:** We interviewed forty staff, residents and families from two LTC sites. Project participants were selected from a unit at each site. **Intervention:** Themes developed in Phase 1 informed Phase 2. In Phase 2, teams from LTC participated in a design sprint to address our challenge, "How might we support meaningful safety conversations between residents, families and staff?" Two prototypes were created and tested in LTC environments. Feedback on user experience from testing was incorporated to improve prototypes. **Findings:** The following themes informed the co-design: 1. Different definitions of safety for families, residents and staff; 2. LTC is the last stop in the health system; 3. Staff go the extra mile for families and residents; 4. Unit culture affects safety **The final prototypes were:** "Me and My Needs" is a visual representation of key information for each resident. This prototype encourages rich conversation, and evolves with the resident's needs. "Conversation Cards" is a pocket sized card with color coded safety questions for staff and families to discuss with each other. **Conclusion:** This project articulated key themes which were used to facilitate co-design session. Two prototypes were developed, which in testing, facilitated relationship building between residents, families and staff. Notably, organizational factors critical to safety conversations were identified. Prototypes will be implemented, spread and scaled at both LTCs.

## 272 COVID19 Experiences of Residents and Staff in LTC

Susan Deering\*, MD, FCFP, MSc; Brenda Lewsen, BA (Sp&HT); Ioana Nistorescu RN, MN, GNC(C); Debbie Selby, MD, FRCP; Nina Vujovic; Mijia Murong

### Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Explore whether a change in the atmosphere due to pandemic restrictions was noticed
2. Identify practice changes worth sustaining after the pandemic period
3. Mitigate perceived negative changes

**Description:**

**Context:** A long term care(LTC) facility during the COVID19 pandemic **Objective:** To better understand the experiences of staff and veteran residents LTC during the Covid19 pandemic. 1. To develop an understanding of the impacts on daily life for residents and work life for staff due to changes associated with maintaining a safe environment in the facility; 2. To identify practice changes worth sustaining after the pandemic period; 3. To mitigate perceived negative changes **Design:** Interviews with residents and staff

**Participants:** Sample size determined by the point at which the data no longer yielded new information Resident or staff participants: **Inclusion criteria:** Sunnybrook Veterans Centre(VC) residents or staff (during March–Jun 2020) **Exclusion criteria:** Residents admitted during the study period, severe to end-stage dementia, unable to speak or answer questions OR staff members who did not work in the VC from March–June 2020 **Findings:** Themes identified from interviews with VC residents included Emotional Responses, Changes in their relationships, and Observation of changes in the VC. Themes identified from interviews with VC staff included Atmosphere in the VC, Emotional Impacts, Healthcare responses to ensure safety, adapting work environments, Importance and challenges of communication. **Conclusions:** Despite the challenges of this environment both groups felt safe in the VC. Recognizing the loss of family contact, staff tried to offer opportunities for virtual communication. Resident and staff perceptions of the changes due to restrictions were quite different. Both groups recognized the strengths in the other, and were complimentary of each other. There was significant emotional impact in both groups. Staff members were required to adapt to an ever-changing work environment and the uncertainties that arose, whereas residents were quite stoic in their responses. Although limits to virtual communication were identified, the benefits probably outweigh the limits. The importance of clear communication were highlighted although information overload is a risk.

**384 Decision-Making Capacity Assessment Toolkit**

Lesley Charles\*, MBChB, CCFP (COE); Jasneet Parmar, MBBS, MSc, MCFP (COE);  
Suzette Brémault-Phillips, PhD; Ashley Pike, PhD; Bonnie Dobbs, PhD;  
Peter George Tian, MD, MSc

**Learning objective:**

**At the conclusion of this activity, participants will be able to:**

1. Describe and disseminate an evidence-informed toolkit on decision-making capacity assessment



## Description:

**Context:** With an increasing elderly population, the number of persons with dementia is expected to increase. Consequently, the number of persons needing decision-making capacity assessments (DMCA) will increase. Many health care professionals do not feel ready to provide DMCA. Since 2006 we have been training allied HCPs and since 2013, we have been training physicians on DMCA. **Objective:** To put together a toolkit to support the DMCA Model. **Methods:** A decision-making capacity assessment Model, was developed in Alberta and aligned with provincial legislation based on literature review, surveys and interviews. It outlines DMCA best practices, and includes a care map, worksheets, staff training workshops, physician training workshops, grand rounds/educational sessions. It has been used by physicians and other health care professionals across the care continuum. Over 1000 healthcare professionals have been trained using the DMCA Model over 12 years. The Model is supported by a 4-part toolkit. **Results:** The Model is a four-part practical, evidence-informed resource which includes the following: Part 1, The DMCA Model; Part 2, The DMCA Model Implementation Framework; Part 3, Resources for Healthcare Providers (HCPs); and Part 4, Resources for Family Caregivers. The DMCA Model Implementation Framework takes the best practice DMCA Model and using the NIRN Implementation Framework sets out 5 stages for introducing the DMCA Model to a site (pre-exploration, exploration, installation, initial implementation and full implementation). Ongoing, there needs to be sustainability planning. Resources for HCPs are summarized from the Office of the Public Guardian and Trustee, AHS and Covenant Health. Resources for caregivers include information on legislation, videos on the Personal Directives, financial planning and the Adult Guardianship and Trusteeship Act. **Conclusion:** The DMCA toolkit is a culmination of 12 years of work around the DMCA Model and expands the scope of the DMCA Model providing invaluable resources.

### 388 Electronic Patient Portals in Primary Care – Work-In-Progress

Karen Ferguson\*, MD, CCFP, FCFP; Simone Dahrouge, PhD;  
Mark Fraser, MD, CCFP FCFP; Meltem Tuna, PhD; Charles Bruntz, MSc

## Learning objectives:

**At the conclusion of this activity, participants will be able to:**

1. Describe the impact of an electronic patient portal on traditional health care usage
2. Describe the impact of an electronic patient portal on primary care provider workload
3. Evaluate the differences between patients who register on a portal and those who do not

## Description:

**Context:** Electronic patient portals are online applications that allow patients access to their own health information. Because the impacts of patient portals are expected to take

place over a prolonged time period, we are using a longitudinal approach to investigate the effect of a portal system on health care usage. **Setting:** A semi-rural inter-professional practice in Southeastern Ontario (Canada), caring for 18,511 patients >18 years, 50% of whom are registered portal users. **Design:** Propensity score matched of portal-users and non-portal-users, longitudinal open cohort evaluation using an interrupted time series. Only adults with practice data minimum one year before and after their portal enrolment date (portal patients), or for two consecutive years (non-portal patients) are included in the matched study. **Intervention:** The portal allows for alternative ways for patients to obtain services traditionally provided in person. These include sending secure messaging (60.1% of portal users accessing this feature), entering vital signs (7.8%), viewing their health maintenance plans (48.8%), and receiving messages from their provider (50%). **Main outcomes:** Changes in number of in-person patient visits with primary care providers and telephone calls to practice nurses over time following portal registration. We will also report on the profile of portal and non-portal patients, and propensity score matching results. **Results:** Registered portal users were more complex than non-portal patients. They were more likely to have a chronic condition (Hypertension: 19.4% vs 11.1%, Diabetes: 7.05/4.6%, Coronary Artery Disease: 3.9%/2.8), had more medications: 2.7/1.7 and more visits: 3.6/2.5 per patient, and were older: 46/34. Considering all patients eligible for the matched study, 81% could be matched to a control, with standardized difference <0.10. This study will report on the changes in service utilization before and after portal registration compared to matched controls. We will also investigate portal impact on provider workload.

### 302 Impact of Baseline Characteristics on Semaglutide 2.4mg Results

Steven Zizzo\*, MD, MBBS (USyd,) MPH (USyd), BHSc (Hon.), LMCC, CCFP, Dip.ABOM, CBE; Robert F. Kushner, MD; W Timothy Garvey, MD; Dan Hesse, PhD; Anna Koroleva, MD; Soo Lim, MD; Ildiko Lingvay, MD, MPH, MSCS; Ofri Mosenzon, MD; Signe O.R. Wallenstein, MSc

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Measure baseline characteristics impact on weight loss achieved with semaglutide 2.4mg in adults with overweight/obesity
2. List the baseline characteristics that are associated with a greater response to semaglutide
3. Describe the proportion of patients with weight loss at week 68 of STEP

#### Description:

**Objective:** Semaglutide is being investigated for obesity management in adults with overweight or obesity in the STEP clinical trial program. This post-hoc analysis investigated weight loss in subgroups of participants based on baseline characteristics in STEP 1. **Design:** Randomized, double-blind, placebo-controlled, phase 3 trial. **Setting:** STEP 1 clinical trial programme. **Participants:** A total of 1961 adults aged ≥18 years with

body mass index (BMI)  $\geq 27$  kg/m<sup>2</sup> and  $\geq 1$  weight-related comorbidity or BMI  $\geq 30$  kg/m<sup>2</sup>, without type 2 diabetes. **Intervention:** Patients were randomized 2:1 to 68 weeks' treatment with once-weekly s.c. semaglutide 2.4 mg or placebo, as adjunct to lifestyle intervention. Descriptive evaluation of categorical weight loss with semaglutide 2.4 mg from baseline to week 68 ( $\geq 20\%$ , 15–<20%, 10–<15%, 5–<10%) by baseline characteristics (age, sex, race, body weight, BMI, waist circumference, and glycemic status) was conducted. **Main outcome measures:** Mean percent weight loss with semaglutide 2.4 mg from baseline to week 68 was analyzed separately by sex and baseline body weight using MMRM analysis with treatment, subgroup, and interaction between treatment and subgroup as factors, and baseline body weight as a covariate, all nested within visit. **Results:** STEP 1 included 1,961 randomized participants (mean: age 46 years, body weight 105.3 kg, BMI 37.9 kg/m<sup>2</sup>; 74.1% female). The observed proportions of participants with  $\geq 20\%$ , 15–<20%, 10–<15%, and 5–<10% weight loss at week 68 were 34.8%, 19.9%, 20.0% and 17.5% with semaglutide 2.4 mg vs 2.0%, 3.0%, 6.8% and 21.2% with placebo. At week 68, mean percent weight loss with semaglutide 2.4 mg was greater among females than males, and in participants with lower vs higher baseline body weight. **Conclusion:** Weight loss with semaglutide 2.4 mg was seen in all subgroups evaluated. Female sex and low baseline body weight were associated with greater response to semaglutide 2.4 mg.

## 263 Optimizing Primary Care for Long-Stay Hospital Patients

Jordan Pelc\*, MD, MSc, CCFP; Christine Soong, MD, MSc, CCFP

### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Apply primary care methods for chronic care optimization for long-stay hospital patients
2. Identify high-yield areas for improved care for long-stay hospital inpatients
3. Apply structured medical reviews for long-stay patients in other settings

### Description:

**Context:** Long-stay patients represent an increasing proportion of hospital inpatients. In Canada, hospitalized patients who are medically appropriate for discharge, but require ongoing admission for disposition planning, are designated as "Alternate Level of Care" (ALC). Little is known about the management of ALC-designated patients. There is evidence that their medical care may be suboptimal. **Objective:** To evaluate the impact of structured medical reviews on primary care optimization in ALC patients. **Design:** Observational study. **Setting:** This study took place at Bridgepoint Active Healthcare (BAH), a 414-bed post-acute hospital which is part of Sinai Health, in Toronto, Canada. The intervention took place on a cohorted unit of ALC-designated patients. **Participants:** Sixteen patients received the intervention. The mean age was 79.8. Fifteen were awaiting placement into long-term care. Length of stay ranged from 345 days to 10118 days. The most common admitting diagnoses were stroke and hip fracture. **Intervention:** Structured

medical reviews were conducted on 16 patients who had already been admitted to the ALC unit prior to implementation initiation. The attending physician carried out the reviews over one or multiple (up to three) visits. **Main outcome measures:** Each new best-practice order placed as the result of a review was counted and totaled per patient. This is a quality improvement project and REB approval was not sought **Results:** An average of 4.9 new best practice interventions were implemented per patient as a result of the structured reviews. The areas with the highest mean scores were medication review and vaccinations. On average 1.6 medications were deprescribed or reduced, and 1 vaccine was given, for each patient for whom this structured review was conducted. **Conclusion:** We discovered several opportunities for implementing best-practice chronic care management. Structured medical reviews represent a simple, low-cost intervention that may improve primary care for long-stay hospital patients in other settings.

#### **424 Reflections on CFPC EM Certification Program**

X. Catherine Tong\*, MD, CCFP (EM), FCFP, DRCPC;  
Erich Hanel, MD, MSc, CCFP (EM), FCFP; Meera Mahmud, MSc; Ilana Allice, MA;  
Meredith Vanstone, PhD; Lawrence Grierson, PhD

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe the evolution of EM specialization and certification in Canada
2. Describe the various practice profiles of EM certified family physicians
3. Discuss strategies to address health human resources for emergency medical care in lower-resource communities

#### **Description:**

**Background:** Emergency medicine (EM) has been a recognized specialty in Canada since 1978. The College of Family Physicians of Canada (CFPC) and the Royal College of Physicians and Surgeons of Canada (RCPSC) developed distinct training pathways. The CFPC recognizes EM as a fundamental component of primary care. The CFPC CAC(EM) program endeavors to address a broad foundation of EM competence while tailoring to the particular communities that graduates intend to serve. In a recent pan-Canadian multiple case study project, we studied the impact of new additions to the CFPC's Certificate of Added Competence (formerly 'Special Competence') program on the delivery of comprehensive, community-adaptive family medicine in Canada, using the existing EM program as a reference point. **Results:** The data we collected confirm that the CAC(EM) certification program provides a means by which family physicians bring EM into rural and remote settings. Many EM-certified family physicians provide a full scope of services. However, the data also show that a large number of physicians practicing family medicine as well as EM do so without EM certification. Moreover, many EM-certified family physicians practice in large urban centers alongside graduates of the RCPSC program. Amongst these physicians, very few extend their practice to comprehensive family medicine. **Conclusion:** The CFPC has succeeded in implementing a successful EM

certification program. However, we notice an imperfect alignment between the intention of the program with the graduates' ultimate practice profile. Potential solutions to this phenomenon include increased investment in the professional development of family physicians without EM certification who choose to practice in lower-resource settings, and creating more return-of-service agreement opportunities between programs and communities. Educators and graduates must continue to navigate the tension between physicians' autonomy in their scope of clinical practice and the evolving complex needs of patients, communities and the healthcare system.

### **301 Semaglutide 2.4mg and IBT in Subjects With Overweight/Obesity**

Richard Tytus\*, BSc.PhM, MD, CCFP, FCFP; Sue D Pedersen, MD; Thomas A Wadden, PhD; Timothy S Bailey, MD, FACE, CPI; Liana K Billings, MD, MMSc; Juan P Frias, MD; Anna Koroleva, MD; Patrick M O'Neil, PhD; Domenica M Rubino, MD; Dorte C Skovgaard, MD, PhD

#### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Compare weight loss achieved with semaglutide 2.4 mg plus IBT versus IBT alone
2. Describe the benefit of semaglutide 2.4 mg plus IBT versus IBT alone in resolving prediabetes
3. Recognise greater improvements in cardiovascular disease risk factors with semaglutide 2.4mg compared with placebo

#### **Description:**

**Objective:** STEP 3 investigated the effect on body weight of subcutaneous (s.c.) semaglutide 2.4 mg with intensive behavioural therapy (IBT) in adults with overweight or obesity. **Design:** A randomized, 68-week, double-blind, multicenter trial. **Setting:** STEP 3 clinical trial programme. **Participants:** A total of 611 adults with body mass index (BMI)  $\geq 27$  kg/m<sup>2</sup> +  $\geq 1$  comorbidity, or BMI  $\geq 30$  kg/m<sup>2</sup>, without diabetes. **Intervention:** Subjects were randomized to once-weekly s.c. semaglutide 2.4 mg or placebo, both as adjunct to low-calorie diet for the first 8 weeks and IBT (decreased energy intake, increased physical activity, counselling). **Main outcome measures:** Percentage change in body weight and loss of  $\geq 5\%$  of baseline body weight by week 68. Confirmatory secondary endpoints included loss of  $\geq 10$  or  $15\%$  of baseline weight. **Results:** 611 randomized subjects (mean age 46 years, body weight 106 kg, BMI 38 kg/m<sup>2</sup>; 81% female) were included. At week 68, mean body weight decreased from baseline by 16.0% (semaglutide 2.4 mg) vs 5.7% (placebo) (estimated treatment difference [95% CI]: -10.3 [-12.0, -8.6];  $p < 0.0001$ ). More subjects achieved weight loss  $\geq 5\%$ ,  $\geq 10\%$ ,  $\geq 15\%$  and  $\geq 20\%$  with semaglutide 2.4 mg vs placebo (87% vs 48%; 75% vs 27%; 56% vs 13%; 36% vs 4%, respectively; all  $p < 0.0001$ ). From baseline to week 68, the proportion of subjects with prediabetes decreased from 48% to 7% (semaglutide 2.4 mg) and from 53% to 26% (placebo). Greater improvements were seen with semaglutide 2.4 mg in waist circumference, BMI, blood pressure and lipids (total cholesterol, LDL, VLDL, free-fatty acids and triglycerides).

Gastrointestinal side effects were most common (semaglutide 2.4 mg: 83%; placebo: 63%). **Conclusions:** In adults with overweight or obesity, semaglutide 2.4 mg plus IBT led to significantly greater weight loss and improvements in cardiovascular disease risk factors and glucose metabolism vs placebo plus IBT.

### 300 Semaglutide 2.4mg in Adults With Overweight/Obesity (STEP1)

Anil Maheshwari\*, MD; Sean Wharton, MD; John P.H. Wilding, DM, FRCP; Rachel L. Batterham, MD, PhD; Salvatore Calanna, PhD; Melanie Davies, MD; Luc F. Van Gaal, MD, PhD; Ildiko Lingvay, MD, MPH, MSCS; Barbara M. McGowan, MD, PhD; Julio Rosenstock, MD; Mari

#### Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Recognize that treatment with semaglutide 2.4 mg induces weight loss in adults with overweight/obesity
2. Determine the mean change in body weight with semaglutide 2.4 mg treatment versus placebo
3. Describe the benefit of semaglutide 2.4 mg treatment on cardiometabolic risk factors and physical functioning

#### Description:

**Objective:** STEP 1 investigated the efficacy and safety of subcutaneous (s.c.) semaglutide 2.4 mg for weight management in adults with overweight or obesity. **Design:** A randomized, double-blind, multinational, 68-week trial (NCT03548935). **Setting:** STEP 1 clinical trial programme. **Participants:** A total of 1961 adults with body mass index (BMI)  $\geq 30$  kg/m<sup>2</sup> or  $\geq 27$  kg/m<sup>2</sup> with  $\geq 1$  weight-related comorbidity, without diabetes.

**Intervention:** Participants were randomized 2:1 to once-weekly s.c. semaglutide 2.4 mg or placebo, both with lifestyle intervention. **Main outcome measures:** Co-primary endpoints: change in body weight and weight loss  $\geq 5\%$  from baseline to week 68. Results are presented for the treatment policy estimand (effect regardless of treatment adherence and rescue intervention), unless stated otherwise. **Results:** Baseline characteristics were mean age of 46 years, body weight of 105.3 kg, BMI of 37.9 kg/m<sup>2</sup> and 74.1% were female. Mean body weight change from baseline to week 68 was  $-14.9\%$  (semaglutide 2.4 mg) vs  $-2.4\%$  (placebo) (estimated treatment difference [ETD]:  $-12.4\%$ ; 95% CI  $-13.4, -11.5$ ;  $p < 0.0001$ ); similar results were obtained with the trial product estimand:  $-16.9\%$  vs  $-2.4\%$  (ETD:  $-14.4\%$ ; 95% CI  $-15.3, -13.6$ ;  $p < 0.0001$ ). Participants were more likely to achieve weight loss  $\geq 5\%$ ,  $\geq 10\%$ ,  $\geq 15\%$  and  $\geq 20\%$  with semaglutide 2.4 mg vs placebo (86.4% vs 31.5%, 69.1% vs 12.0%, 50.5% vs 4.9%, and 32.0% vs 1.7%, respectively;  $p < 0.0001$  for all). Greater improvements were seen with semaglutide 2.4 mg vs placebo in cardiometabolic factors and physical functioning. The most frequent adverse events with semaglutide 2.4 mg were gastrointestinal (typically transient and mild-to-moderate).

**Conclusion:** In adults with overweight or obesity, once-weekly s.c. semaglutide 2.4 mg induced  $\sim 15\%$  weight loss by week 68. Over two-thirds of participants achieved clinically

beneficial weight loss  $\geq 10\%$  and one-third  $\geq 20\%$ , with improvements in cardiometabolic risk factors and physical functioning.

#### **426 This is Family Medicine: Positively redefining family medicine**

Adam Payne\*, BScKin; Emily Seale, MPH BSc

##### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Explore current initiatives currently being undertaken to promote family medicine
2. Participate in a national initiative aimed at positively redefine family medicine

##### **Description:**

**Context:** Family medicine is fundamental to the health system, contributing to the delivery of effective, comprehensive, and sustainable care. Nevertheless, there is a narrative that persists in medical schools and clinical settings that the work of family physicians is easy, straightforward, and less work than other specialties. **Objective:** Positively redefine family medicine through the use of social media platforms. **Project:** Medical students (and Family Medicine Interest Group (FMIG) executives) at the University of Ottawa hypothesized that misinformation and limited exposure may be contributing to the observed misconceived perceptions. As such, they sought to develop social media platforms (Instagram and Facebook pages) to address current misconceptions and redefine the perceptions of family medicine within the medical community. In September 2020, they launched the This is Family Medicine (TIFM) campaign in collaboration with the University of Ottawa's Department of Family Medicine. This student-led online campaign is aimed at shifting the attitude towards family medicine amongst healthcare professionals and the general public by showcasing the importance of family medicine and celebrating the diverse contributions that family physicians have made. On a weekly basis, anecdotes from family physicians, residents, and medical students across Canada are shared through the social media pages. **Conclusion:** TIFM has been online for over six months and has gained an audience of over 1,500 Instagram followers. As the social media platforms continue to expand nationally, the TIFM team hopes to engage with a larger audience and contribute to further shifts in the dialogue taking place across the country regarding family medicine. Future steps include capturing current perceptions regarding family medicine among the medical community that engages with the TIFM campaign and monitoring potential shifts in these perceptions over time.

#### **279 Vulvar Dermatoses and Risk of Squamous Cell Carcinoma**

Maria Leis\*, BA; Ashmita Singh, BSc; Calandra Li, BSc; Renita Ahluwalia, MD, FRCPC; Patrick Fleming, MD, FRCPC; Charles Lynde, MD, FRCPC

##### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Describe the prevalence and incidence of vulvar squamous cell carcinoma in lichen planus
2. Describe the prevalence and incidence of vulvar squamous cell carcinoma in lichen sclerosus
3. Determine the absolute risk of vulvar squamous cell development in vulvar dermatoses

### **Description:**

Vulvar squamous cell carcinoma (VSCC) is the most common vulvar malignancy. Lichen sclerosus (LS) and lichen planus (LP) are inflammatory skin diseases of unknown etiologies which may predispose women to developing VSCC, however, no clear conclusions regarding their potential as precursor lesions have been drawn. The objectives of this study were to systematically review the literature to determine: 1) the prevalence of LS and LP present in association with VSCC, and 2) the incidence rate and absolute risk of developing VSCC in LS and LP. A search was performed through MEDLINE, EMBASE and CINAHL databases. Three independent reviewers screened the articles first on title/abstract and then on full text published before September 1 2020. Women with a history of previous VSCC, HPV+, smoking or autoimmune disease were excluded. Newcastle-Ottawa observational study scales were used to assess the risk of bias and methodological quality of included studies. Of the 3132 studies assessed, 31 were selected for analyses. Due to study heterogeneity, a qualitative synthesis was conducted. The prevalence of LS and LP present in association with VSCC ranged from 0% (95% CI: 0-5) to 83% (95% CI: 36-100) and 1% (95% CI: 0-7) to 33% (95% CI: 4-78), respectively. The incidence rate of VSCC ranged from 1.16 (95% CI: 0.03-6.44) to 13.67 (95% CI: 5.50-28.17) per 1000 person-years for LS. The absolute risk of developing VSCC in patients with LS varied from 0.0% (95% CI: 0.0-5.52) to 21.88% (95% CI: 9.28-39.97), and for LP was 1.16% (95% CI: 0.1-4). Incidence rate was not calculable due to study characteristics for LP. This study provides evidence that there is an increased risk of developing VSCC particularly in women with LS, while associations with LP are less clear. Early identification and treatment are essential to prevent potential progression of these vulvar dermatoses to malignancies.

### **299 Weight Loss Maintenance With Semaglutide 2.4 mg**

Laura Reardon\*, MD, CCFP diplom ABOM; Michael A. Tsoukas, MD;  
Domenica M. Rubino, MD; Niclas Abrahamsson, MD; Melanie Davies, MD;  
Dan Hesse, PhD; Frank L. Greenway, MD; Camilla Jensen, MSc;  
Ildiko Lingvay, MD, MPH, MSCS; Ofri Mosenzon, MD; Julio Rosenstoc

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Compare weight loss achieved with continuing semaglutide 2.4 mg vs switching to placebo



2. Describe the benefit of semaglutide 2.4 mg on cardiometabolic risk factors in adults with overweight/obesity
3. List the most common adverse events observed during treatment with semaglutide 2.4 mg vs placebo

### **Description:**

**Objective:** STEP 4 investigated weight loss maintenance of continued subcutaneous (s.c.) semaglutide vs switching to placebo in participants reaching semaglutide 2.4 mg during study run-in. **Design:** A 20-week study run-in. **Setting:** STEP 4 clinical trial programme. **Participants:** 803 adults without diabetes (BMI  $\geq 30$  kg/m<sup>2</sup> or  $\geq 27$  kg/m<sup>2</sup> with  $\geq 1$  weight-related comorbidity) who reached 2.4 mg of once-weekly s.c. semaglutide. **Intervention:** Participants were randomized 2:1 to continue semaglutide 2.4 mg or switch to placebo for 48 weeks, both with lifestyle intervention. **Main outcome measure:** The primary endpoint was body weight change between weeks 20–68. Treatment policy estimand results are presented. **Results:** Mean body weight ( $\pm$ SD): 107.2 ( $\pm$ 22.7) kg at week 0 and 96.1 ( $\pm$ 22.6) kg at randomization (mean change  $-10.6\%$ ). In randomized participants (mean age 46 years, BMI 34.4 kg/m<sup>2</sup>, 84% white, 79% female), between weeks 20–68, mean body weight change was  $-7.9\%$  (semaglutide 2.4 mg) vs  $+6.9\%$  (placebo) (estimated treatment difference [ETD]:  $-14.8\%$ ; 95%CI  $-16.0, -13.5$ ;  $p < 0.0001$ ). Similar results were obtained with the trial product estimand. For participants continuing semaglutide 2.4 mg, body weight change from week 0–68 was  $-17.4\%$ . Continued semaglutide 2.4 mg led to improvements in cardiometabolic risk factors vs placebo. During run-in, 5.3% of participants discontinued treatment due to adverse events (AEs); after randomization, 2.4% (semaglutide 2.4 mg) and 2.2% (placebo) discontinued. Most frequent AEs with semaglutide 2.4 mg were nausea, diarrhoea and constipation (mostly transient and mild-to-moderate). **Conclusion:** In adults with overweight or obesity, continued semaglutide 2.4 mg after dose escalation led to clinically relevant weight loss, while switching to placebo led to weight regain, underscoring the chronicity and relapsing nature of obesity and the need for continued treatment.

### **427 What Physicians Need to Know About Canada's Action Plan for Elimination of Cervical Cancer by 2040**

Brenda Fernandes\*, MScPH; Michelle Halligan, MSc; Deb Keen, RN, MPA;  
Erika Nicholson, MHSc; Corinne Daly, MSc; Heather Bryant, MD, CCFP, FRCPC, PhD

### **Learning objectives:**

**At the conclusion of this activity, participants will be able to:**

1. Understand Canada's plan to eliminate cervical cancer as it relates to primary care
2. Develop an awareness of what's next for HPV immunization, cervical screening and follow-up
3. Recognize opportunities to shift current practices in HPV immunization and cervical screening

## Description:

**Context:** Cervical cancer is a preventable and treatable disease when identified early, yet over 1300 women develop the disease and over 400 die from cervical cancer each year in Canada. **Objective:** Improved HPV immunization, coupled with HPV primary screening and appropriate follow-up can lead to the elimination of cervical cancer. **Methods:** The Action Plan was created with advice from various partners across Canada, including guidance from primary care, national and international experts in HPV immunization, cervical screening and treatment. First Nations, Inuit and Métis partners identified Peoples-specific priorities and actions. Perspectives of patients and the public were gathered through a national survey and interviews. **Results:** The new Action Plan for the Elimination of Cervical Cancer in Canada sets out priorities, targets and actions that will move Canada toward the goal of elimination by 2040. A pan-Canadian effort will be required to reach goals of full HPV vaccination of children and youth; transition to primary HPV testing in cervical screening programs and to ensure rigorous follow up when abnormalities are identified. Initial implementation is underway across cervical cancer prevention and care, with a focus on reducing disparities and taking action on First Nations, Inuit and Métis self-determined priorities. This includes planning transition to HPV primary screening, developing data-driven solutions to improve HPV immunization for youth in school and catch-up settings, and developing clinical guidance for triaging and referring patients with HPV positive test results for follow-up. **Conclusion:** Elimination of cervical cancer in Canada is within reach. Initial work will inch Canada closer to the goals of the Action Plan, however, intensified efforts are needed to close remaining gaps and reduce disparities. Increased collaboration between primary care, public health, and the cancer system, as well as with First Nations, Inuit and Métis and other organizations that reach underserved populations will accelerate action.

## Besrouer Posters

### 434 A Quality-Improvement Project to Reduce Prevalence of Pressure Ulcers Among Home Care Patients at DFMC-Madinat Zayed

Eman Faraj Alomari\*, CRM ,BSM,DIP-PHC- DipHM, ALDhafra Hospitals, ALDhafra Family Medicine Center, Madinat Zayed City of Abu Dhabi 028072007

## Description:

**Background:** ALDhafra Family medicine Center (DFMC) Home health care (HHC) team serves home-bound patients. In 2019-2020, 104 needed frequent visits and 69 that needed occasional visits and 18% were affected by pressure ulcers or some degree of skin breakdown. **Aim:** Our aim from this quality improvement project was to improve patients' outcomes by reducing the prevalence of pressure ulcers by 5%, identifying areas for improvement in prevention of pressure ulcers, and increasing the adoption of preventive strategies in home care areas. **Methods:** Using Performance Improvement Methodology (Plan, Do, Check, Act, PDCA), current status was documented and patient care assessment

measures audited. A logic model was devised, data analysis performed, and areas of improvement identified. **Results:** Setting a patient repositioning schedule, using pressure reduction devices e.g. foam water gel, air mattress, proper nutritional and skin care assessment, concentration on new staff education; supporting the HHC team with interdisciplinary team support including primary care physician, dermatologist, dietician, podiatrists, home and wound care nurses and surgeons all improved patient's condition and reduced prevalence of pressure ulcer from 18% to 4%. We also found that conclude have private home health care companies have a positive impact on quality of care as they are able to provide 24 hours service. This has implications for other service models.

#### **435 Adapting the Chronic Care Model for Management of Type 2 Diabetes for the Primary Care Setting in Kuwait: A review of the evidence and practice**

Yasir Mohammed Zaroug Elradi\*

Affiliation: With cooperation of Dhaman Company in Kuwait & Warwick University School of Medicine, Diploma MSc Program of Diabetes, UK

Acknowledgement: Dr. Sumeet Sodhi, Besrou Center for Global Family Medicine (Canada), provided mentorship in the development of this work

##### **Description:**

**Background:** Diabetes is a global epidemic with more than 422 million affected. In the Middle East and North Africa (MENA), the prevalence rate is 10% and in Kuwait it is 15.8% with one third of Kuwaiti adults affected. Evidence shows that the chronic care model (CCM) has a large benefit on glycemic control and reduction of diabetes complications when implemented effectively. **Methods:** A literature review using PubMed and grey literature (conference abstracts available online) was conducted to find evidence around diabetes care and outcomes for the MENA region, with a focus on models of care for diabetes in primary care settings. The different models of care were compared to our local model to develop recommendations and potential solutions to improving diabetes care in our clinic. **Results:** Our usual model of care, which consists of clinic visits with a single nurse, doctor or pharmacist, generally had a higher rate of diabetes patients with uncontrolled diabetes and diabetes complications compared to the CCM for diabetes, as well as lower cost-effectiveness [3]. CCM incorporates six evidence-based components: self-management support, delivery system design, decision support, clinical information systems, organization of health care, community support. Barriers to implementing CCM include: weak delivery systems, limitations of data systems, challenges in patient-physician interactions, difficulty in accessing care, especially in distant areas, and lack of infrastructure (facilities and resources). **Discussion:** CCM should be the standard of care for the management of diabetes in primary care settings. We have made changes at the micro level in our clinic and are advocating at the macro level to bring CCM to our setting. We conducted a workshop raise awareness and discuss the benefits of CCM, and our team worked as local champions for CCM. Over time, we were able to assemble a multi-disciplinary team comprised of physicians, a podiatrist, a nutritionist, a diabetes

health educator and qualified nurse. We have observed dramatic changes in diabetes outcomes and improved satisfaction from our patients. We lack the health information system and research infrastructure to provide further data on outcomes, but continue to work towards quality improvement in this area.

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### 436 Advocacy is an Art That Can Be Learned

Christopher Dowrick<sup>1,2\*</sup>; Helen Page<sup>2</sup>; Emma Gilchrist<sup>3</sup>; Stephanie Gold<sup>3\*</sup>; Sarah Hemeida<sup>3\*</sup>; Bonnie Jortberg<sup>3</sup>; Cindy Lam<sup>1</sup>; Amanda Howe<sup>1,4</sup>; Ana Nunes Barata<sup>5</sup>; Larry Green<sup>1,3</sup>; Henry Owuor<sup>6\*</sup>; Krystle Fraser-Barclay<sup>7</sup>; Tamica Daniels-Williamson<sup>7</sup>

Affiliations: <sup>1</sup>WONCA Working Party for Mental Health; <sup>2</sup>University of Liverpool, UK; <sup>3</sup>Farley Health Policy Center, Colorado USA; <sup>4</sup>Royal College of General Practitioners, UK; <sup>5</sup>WONCA Young Doctors Movement, Portugal; <sup>6</sup>Family Physician, Nyamira County Referral Hospital, Kenya; <sup>7</sup>Family Physician, Georgetown Public Hospital, Guyana

#### Description:

**Context:** Practice transformation requires systemic approaches, persuading policy-makers that primary care can deliver effective mental (behavioral) health care, and to invest in infrastructure and capacity building. The World Organisation of Family Doctors (WONCA) includes young doctors with commitment to primary mental health care but insufficient expertise to enable system change. **Aim:** To help young family doctors: learn the steps to integrate mental (behavioral) health care into primary care delivery; develop skills for practice transformation; become advocates for local system change. **Participants:** Faculty comprised facilitators from Eugene Farley Health Policy Center, and mentors from WONCA Working Party for Mental Health. We recruited 12 young family doctors (seven women, 10 from LMICs) from all WONCA regions. **Intervention:** The educational programme, devised initially by faculty, was based around six 90-minute zoom sessions, one per month. Each session was provided twice (two groups of six) to accommodate time zone issues. The educational sessions covered behavioural health integration, leadership,

team-based care, quality improvement, burnout and resilience, and advocacy. Learners also developed individualised projects to undertake in their own locality, with support and guidance from mentors and facilitators. Project work included educating other doctors, improving team-based care, establishing quality care systems and collating community resources. We took a learner-centred approach to change, creating a climate of encouragement. **Findings:** A two-phase evaluation process included questionnaires and qualitative group interviews for faculty and learners. Participation logs showed that learners and facilitators maintained a consistently high level of participation, as did facilitators, with variable mentor involvement. Feedback from learners at mid-term, for example on US-centric materials, helped faculty refine content and process of the second half of the programme. By programme end, despite limitations imposed by the COVID-19 pandemic, learners formed their own community, finding the heterogeneity of their settings enriching. Given the constraints of low-income settings, learners reported increased confidence and skills to implement change and progress toward their program goals. **Conclusions:** Learners realise that integration of mental health care is possible in their own clinical settings. They continue to collaborate. We now plan a five-year programme, involving recent learners as mentors and faculty.

#### **437 Analysis of Individualized Service Model for Patients suffered From Multiple Diseases in General Medicine Department**

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##### **Description:**

**Objective:** To analyze the status quo of multiple chronic diseases coexistence in general medicine department and observe the effect of individualized service model by health promotion team during treatment of multiple diseases coexistence. **Methods:** Through prospective study, we collected information of 2375 patients hospitalized in the general medicine department of Nanjing Jiangning Hospital during January 2019 to December 2020 and analyzed the mobility and status of multiple chronic diseases coexistence of Hypertension, Diabetes mellitus (DM), Coronary artery diseases (CAD), Chronic obstructive pulmonary disease (COPD) and Cancer. From the 2375 patients mentioned above, we selected 240 patients who suffer from both hypertension and DM. We randomly numbered the patients into experimental group and control group by single or even numbers, We treated the patients of control group by traditional single person management mode and treated the patients of experimental group by general medicine health promotion team individualized service model. We assessed patients of two groups by health knowledge awareness rate, the control of blood pressure and blood glucose, and health condition (using the brief list of health surveys SF-36) 6 months after treatment. **Results:** In hospitalized patients over 60 years old, 758 patients (60.89%) suffered from at least two chronic diseases, 503 patients (40.47%) suffered from two chronic diseases, 198 patients (15.93%) suffered from three chronic diseases and 57 patients (4.59%) suffered

from four or more chronic diseases. After 6-months treatment, patients in experimental group had significant higher health knowledge awareness rate ( $P=0.019$ ), better control of blood pressure (SBP:  $P=0.028$ ; DBP:  $P=0.015$ ) and blood glucose (FBG:  $P=0.025$ ; HbA1c:  $P=0.034$ ), healthier physical condition than control group ( $P<0.05$ ). **Conclusion:** Multiple diseases coexistence is a universal phenomenon in gerontal patients, which increases with age. The individualized service model ensured patients with multiple chronic diseases obtaining continuous, comprehensive and individualized whole-process care, improving treatment effect, health condition and the quality of life of patients, which is worth to popularize.

#### 438 **Bad News Better: Teaching breaking bad news at times of a pandemic**

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Affiliations: <sup>1</sup>Arabian Gulf University, Bahrain; <sup>2</sup>Harvard Medical School, Boston MA; <sup>3</sup>Brigham and Women's Hospital, Boston MA

##### **Description:**

**Background:** The COVID-19 pandemic has changed the medical education landscape, and medical educators were faced with unprecedented challenges in providing medical students with authentic learning experiences under new and unprecedented circumstances. **Objectives:** The purpose of this mixed-methods sequential explanatory study was to identify the impact of a novel educational intervention on senior medical students learning how to break pandemic-related bad news to patients and families remotely, and to evaluate their learning experience and emotional activation to the intervention. **Methods:** A three-hour educational intervention the “Bad News Better workshop” for Arabian Gulf University senior medical students in the Kingdom of Bahrain, was developed according to Kern's six steps of curricular development for medical education. Grounded in Kolb's experiential cycle of learning as an educational framework, the workshop included an interactive introduction of the validated (SPIKES) protocol for breaking bad news (BBN), role-play exercises, feedback, reflections and discussions, and objective structured clinical examinations with trained standardized patients. Learner characteristics, previous experiences, and self-perceived confidence pre/post-course were collected. In addition, we collected pre/post self-reported and standardized patient assessments of BBN skills, post-course survey evaluations, and finally, in-depth semi-structured interviews to measure learner learning experience and emotional activation. **Results:** Thirty-two medical students participated in the workshop. Learners' self-reported confidence level in BBN to patients and standardized patient assessment of skill in BBN to patients improved significantly ( $p<0.001$ ). Self-assessment of BBN skills improved significantly in all but one aspect “the use of medical jargon” ( $p<0.001$  and  $p=0.243$  receptivity) and learner ratings of the workshop were very high for all items. Although we were not able to find strong correlations between emotional activation and learning quantitatively despite using a validated tool, through qualitative analysis, we identified a series of themes associated with the learning experiences and

related emotions that had a substantial impact on the way the participants learned how to BBN during the workshop. **Conclusion:** This reflective, simulation-based workshop successfully improved medical students' confidence and skills in BBN to patients and provided insight into practices that can help learners participate affectively in remote simulation-based learning interventions to teach communication skills such as BBN.

#### **439 Effect of Family Planning Intervention During Child Immunization in PHC Ethiopia (RCT) (In Progress)**

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##### **Description:**

**Background:** Family Planning (FP) is recognized as a key life-saving intervention for mothers and their children. In Ethiopia, the service is mostly provided in Primary Health Care (PHC) settings. Postpartum FP service is one of the recommended public health interventions aimed at reducing maternal and child morbidity and mortality. The promotion of FP to delay conception after a recent birth optimizes maternal and child health outcomes. Irrespective of the number of opportunities to visit a health facility during the postpartum period, postpartum women are among those with the greatest unmet need for FP; postpartum FP utilization is low throughout Ethiopia, ranging from 10% in Northwest Ethiopia to 38% in Tigray. **Objective:** To evaluate the effect of an intervention on the improvement of FP utilization during the postpartum period and associated barriers or enabling factors affecting uptake of FP during first 12 months of the postpartum period in PHC settings in Addis Ababa, Ethiopia **Methods:** This randomized control trial takes an implementation science approach to studying pamphlet supported FP educational intervention among mothers presenting for vaccination of their infants (less than 6 months old). Mothers in the selected health centers are randomly allocated to one of two study arms (intervention or non-intervention) using Excel generated code numbers. The code numbers are placed in a non-transparent envelope and each mother randomly picks one. Mothers in the intervention arm receive counseling on the benefits of FP and are provided with FP pamphlets in addition to the routine immunization service, while mothers from the control arm receive the routine immunization service. Baseline and post-intervention assessment will be collected from both groups for comparison of differences on FP utilization when the participants return for measles vaccination. Quantitative data will be collected using a pre-tested structured questionnaire and SPSS will be used for data analysis. **Conclusion:** Postpartum FP during infant immunization is considered to be a high impact Maternal Child Health intervention. The presence of Family Medicine in PHC settings give an opportunity to test the effectiveness of such an intervention in Ethiopia.

#### 440 **Epidemiology of Cancer in Rural Congo: Case of IME Kimpese Hospital, Democratic Republic of Congo**

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##### **Description:**

**Background and Aim:** Cancer is a public health problem in developing countries. It is aggravated by diagnostic confirmation difficulties. The aim of this study was to determine the epidemiological profile of cancers in congolese rural areas. **Methods:** This cross-sectional study included 914 patients for whom histopathology protocols were available. All protocols with benign diagnoses were excluded. Data were collected from the registers of the histopathological Department of IME-Kimpese Hospital from January 2008 to December 2013. Kimpese is a city located 220 km west of Kinshasa, the capital city of the Democratic Republic of the Congo. This hospital is one of the biggest hospitals in the Kongo-Central province with a capacity of 400 beds and houses the only provincial histopathology laboratory. The biopsy samples analysed in this laboratory came from various hospitals in the province. Pearson's Chi-square test was used to compare proportions and Student's t-test for the means. Logistic regression was used to find the risk degree of metastasis of each organ in multivariate analysis with calculation of the adjusted OR with 95% confidence interval. The p-value < 0.05 was the level of statistical significance. **Results:** The mean age of patients was 55.2 ± 14.5 years, and 61.9% were women with a sex ratio of 2W/M. Ductal carcinoma (23.6%), squamous cell carcinoma (23.5%) and adenocarcinoma (23.1%) were the most common cancers. The majority of cancers infiltrated other organs (57.9%). According to age, ductal carcinoma was more prevalent in females between 40 - 49 years old (p=0.002) and prostatic carcinoma was more common in older patients aged 60 or above (p ≤ 0.001). With regard to metastasized organs, inguinal lymph nodes had a 31-fold increased risk of metastasis (p < 0.001). This risk was multiplied by 6 for the liver (p < 0.001), by 3 for the bladder (p = 0.015), by 2 respectively for the ovaries (p = 0.015), and the bone (p = 0.023). **Conclusion:** Cancer is more frequent in elderly women with a predominance of squamous and ductal carcinoma. The presence of a national cancer registry is necessary in the country for a good follow-up of cancer cases.

#### 441 **Evaluation of a Nutritional Patient Education Program for Diabetic Patients in a Primary Care Center in Tunisia**

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## Description:

**Introduction:** Type 2 Diabetes is a major public health issue in Tunisia, where therapeutic patient education (TPE) plays a major role for a better auto-treatment, reaching glycaemic goals, slowing complications and improving life quality. In this context, our study was to evaluate the impact of a nutritional TPE program on certain criteria including daily calorie intake, Body Mass Index (BMI), glucose haemoglobin (HbA1C) and motivation to change eating habits for diabetic patients following regularly at a primary care center. **Methods:** This was an interventional pre-experimental (before-after) study composed of individual TPE sessions focused on nutrition delivered by a specialized nutritionist and a family medicine resident, for type 2 diabetic patients who were on oral antidiabetic treatment and adherent to their treatment. **Results:** Our population of 20 patients was female in majority (65%). Patients had been diagnosed with diabetes for 8 years on average. Their oral antidiabetic treatment was mostly a bi-therapy of Metformin and Glimepiride (85%). The follow-up consultation took place on average after 4 months. Daily calorie intake was initially at 2811 calories on average, and has decreased to 2500 calories after the intervention ( $p < 10^{-3}$ ). Initial BMI has increased from 30.09 Kg/m<sup>2</sup> on average to 31.74 Kg/m<sup>2</sup> ( $p = 0.43$ ). HbA1C was initially on average 8.87% and has decreased significantly to 8.4% in the post-intervention evaluation ( $p = 0.04$ ). Finally, the motivation of patients has improved significantly in the action phase from 10% to 85% ( $p < 10^{-3}$ ). **Conclusion:** Our interventional study has demonstrated a positive impact of TPE to reach glycaemic, calorie intake and motivation goals. There is a need to standardize TPE programs at the individual and group levels according to the themes and recent guidelines, by showcasing multidisciplinary collaboration and measuring its impact in the long term on glycaemic goals and patient quality of life.

## 442 Evaluation of the Efficacy of Weight Lowering Drugs: Saxenda Liraglutide versus Orlistat

Dr. Mariam Rashed Al Mehairbi – (Consultant Family Physician, Al Dhafra Hospitals, Al Dhafra Family Medicine Center, SEHA Abu Dhabi, United Arab Emirates); Dr. Nazmi Hussein Alsawalhi\* – (Consultant Family Physician, Al Dhafra Hospitals, Al Dhafra Family Medicine Center, SEHA Abu Dhabi, United Arab Emirates); Dr. Wafa Abdul Basith – (Senior Pharmacist, Al Dhafra Hospitals, Al Dhafra Family Medicine Center, SEHA Abu Dhabi, United Arab Emirates)

## Description:

**Aim:** To evaluate the effectiveness of two of the FDA approved medications in reducing weight used for obese patients in the Perfect weight clinic (PWC) of Al Dhafra Family Medicine Center (DFMC) and simultaneously assess the safety and cost of the medications used. **Methods:** We did a single center based cohort, observational 16-week monitoring study of weight management in patients on Injectable Saxenda® Liraglutide and for 3 months or more in patients on Open-label Oral Orlistat in the PWC of DFMC. Participants with the Body Mass Index (BMI) of 27 kg/m<sup>2</sup> or greater in the presence of at least one weight-related comorbid were studied with regards to the effectiveness of the weight

reducing drugs. Weight change were monitored after each visit to the clinic for patients on Liraglutide, and retrospective data was extracted from Health Information System (HIS) for weight monitoring in patients prescribed Orlistat. Comparison of means of continuous variables was done using paired sample t-test and two sample t-test. **Results:** One Hundred Seventy patients from only Emarati (local population) were included in both groups. 94 from the group of Saxenda® Liraglutide (mean age  $34.8 \pm 10.27$  years) were monitored and data from 76 patients from the group of Orlistat (mean age  $46.91 \pm 10.78$  years) was reviewed. The mean weight loss (WL) in patients on Saxenda® Liraglutide ( $7.14 \pm 2.38$  kg) was significantly higher than patients on Orlistat ( $1.89 \pm 4.47$  kg). There was an exposure–weight loss response in only 14 patients (15%) on Saxenda® Liraglutide who continued with the 16-week regimen (Mean WL – 7 kg) reaching the target of > 4% WL from baseline. Substantial exposure-weight loss was not seen in those 11 patients (14.47%) on Orlistat who maintained the three times a day regimen for 3-7 months’ thereby not attaining the target WL of 5% from baseline. Results revealed that 26.6% of Saxenda® Liraglutide and 36.6% of Orlistat were appropriately utilized cost wise. The safety profile showed that only 3 patients (3.2%) discontinued the treatment due to the known GI side effects of Saxenda® Liraglutide. **Conclusions:** This analysis supports the use of liraglutide 3.0mg for weight management in patients who comply with the medication along with the diet, exercise and behavioural changes as no concomitant deterioration in safety/tolerability besides previously known gastrointestinal side effects were noted. There was not much remarkable weight loss with Orlistat and rather poor compliance with both medications.

Keywords: Liraglutide, Orlistat, weight loss

#### **443 Exploration on the Development of General Practice in “AAA” Hospitals in the New Era**

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##### **Description:**

**Background:** In September 2018, the National Health Commission of the People’s Republic of China promulgated “Standardized training base for resident physicians (AAA hospitals) setting guidelines for general practice departments (for trial implementation)”. This guidance document requires AAA hospitals in standardized training bases for residents to set up independent general practice departments by the end of 2019. After two years of development, the general practice of the AAA hospitals in the base has begun to take shape and has played an important role in the standardized training of general practice residents. However, Chinese hospitals still do not have a standardized evaluation system for general practice to improve their clinical skills and promote rapid and comprehensive development of general medicine. **Subject:** Investigate the status and problems concerns of general practice discipline construction in AAA hospitals and

discuss the sustainable development strategies of general practice in AAA hospitals.

**Methods:** This was a cross-sectional study using a self-administered questionnaire among the directors of general practice departments of 21 AAA hospitals in the form of WeChat. Data was analyzed using descriptive statistics. **Results:** Among the 21 directors, 4 directors reported that general practice was not the first-level clinical department. 12 directors thought the incentive mechanism of general practice is not in place. All the surveyed directors pay attention to the status of the discipline in the hospitals. The establishment of the quality control standards of the discipline of general practice has not been incorporated into the hospital's key specialties and the graded hospital evaluation. All of them have put forward constructive solutions to current situations of general practice.

**Conclusion:** The directors of general practice in tertiary hospitals generally believe that the establishment of general practice in China is still in the early stage and far from reaching the expectation. As a medical specialty, it's urgent for general practice to formulate its quality control standards and incorporate them into the establishment of different levels of key specialties and the evaluation of graded hospitals. This will promote sustainable and healthy development of general practice and lay a solid foundation for training more talented and outstanding general practitioners.

Keywords: AAA Hospitals; General practice; Evaluation model; Discipline construction

#### **444 Hypertension: Patient's knowledge on their disease and control level in Kimpese (DRC) (In progress)**

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#### **Description:**

**Context:** The world prevalence of HBP in 2015 is 24.1% for men and 20.1% of women. Up to 1.13 billion adults are affected. The highest rate is observed in African region (27%). Less than 1 in 5 patients with hypertension worldwide have well controlled hypertension (OMS, 2015). In 2016, the prevalence of hypertension in DRC was estimated at 22 % and cardiovascular mortality rate at 10%. Two studies in Kinshasa (2015) showed 77.5%, 88.4% prevalence of uncontrolled hypertension and one in Matadi (2016) revealed 65.8%. Personal observation in first trimester (2019) in internal medicine service at IME district hospital was 60.3%. Several factors contribute to the non-control of hypertension at the level of the patient. Patient's knowledge of their disease is one of such factors. Therefore, our study intends to answer the question: " Are hypertensive patients attending Kimpese health facilities knowledge about their disease, and it's relation with control level of hypertension? " **Objective:** To determine the hypertensive patient's knowledge, and control level of hypertension. **Methods:** This cross-sectional study will include 422 Adults

patients with hypertension attending the internal medicine service of IME Kimpese Hospital and 4 health centres: CECO, LAMBA, LA FAMILLE, NKEBOLO. A questionnaire will be administered in French and Kikongo and the data entry with EPIDATA 3.5 software and statistical analysis will be done with SPSS version 21. The descriptive data will be presented in of frequencies for the categorical variables and means for continuous variables. The Hypertension knowledge will be measured by an adapted validated Indian Hypertension Knowledge Test which total score is 22. The patients will be classified in three categories according performed in Poor knowledge of hypertension (0-10), Moderate knowledge of hypertension (11-16), Good knowledge of hypertension: (17-22). The association between Hypertension knowledge and the control level of blood pressure will be measures with chi-square test (independence). The threshold of significance retained will then be  $p < 0.05$  with 95% CI. **Expected Results:** Level of knowledge of hypertensive patients on their disease and its associated factors is determined. The association between hypertension knowledge and control level is determined.

#### **445 Is There Any Role for Vitamin D in COVID-19 Infection (In progress)**

Dr. Nazmi Hussein Alsawalhi\*, MD, Consultant Family Physician, Al Dhafra Hospitals, Al Dhafra Family Medicine Center – SEHA, Abu Dhabi, United Arab Emirates; Dr. Wafa Abdul Basith, Senior Pharmacist, Al Dhafra Hospitals, Al Dhafra Family Medicine Center – SEHA, Abu Dhabi, United Arab Emirates; Dr. Zia Ur Rehman, Pharmacist, Al Dhafra Hospitals, Al Dhafra Family Medicine Center – SEHA, Abu Dhabi, United Arab Emirates; Doaa Mansour, Laboratory Phelobotamistl, Biochemistry diploma, Al Dhafra Hospitals, Al Dhafra Family Medicine Center – SEHA, Abu Dhabi, United Arab Emirates; Shadi Ibrahim Alsallakh, Medical Affairs administrator, MBA, Al Dhafra Hospitals, – SEHA, Abu Dhabi, United Arab Emirates

#### **Description:**

**Background:** COVID-19 infection has a high mortality rate and is still the leading cause of death of a large number of the world's populations. COVID-19 infections are categorized as having two forms: severe acute respiratory distress syndrome (SARS) and organ failure being the moderate to severe form and cough, fever and cold being the milder form.

**Objective:** The aim of this study is to find out whether Vitamin D and its metabolites have any role in enhancing immunity against COVID-19 infection. **Methodology:** A total of 891 patients were enrolled in this retrospective observational cohort study. The patients were divided into two groups: Group A comprising of patients with data on the intake of Vitamin D supplements and Group B comprising of patients with no data on the usage of Vitamin D supplements. The two groups were statistically analysed with clinical laboratory parameters for the severity of COVID-19 infection (showing no or mild symptoms to moderate or severe form of disease) for a period of 6 months (March 2020 until August 2020). Fifty patients whose Vitamin D levels were retrieved from their electronic medical records at the time of infection were further investigated for any correlation with the severity of COVID-19 infection. All variables showing normal distribution pattern were given as means  $\pm$  standard deviation and variables showing non-

normal distribution were given as median (25th to 75th percentile). SPSS software was used to analyse quantitative and qualitative data and applicable statistical tools of regression and correlation for comparison. A p value of less than 0.05 was considered statistically significant.

Keywords: COVID-19 infection, Vitamin D, Severe, Mild, Moderate

#### **446 Learning Conditions in General and Family Medicine Residents During the COVID-19 Pandemic in Argentina**

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##### **Description:**

**Introduction:** The number of actual postgraduate trainees in General and Family Medicine (GFM) in Argentina is 835 residents. COVID-19 pandemic dramatically modified the postgraduate learning conditions particularly for residents of GFM. **Objective:** To explore the perceptions of residents of GFM in Argentina about training conditions in pandemic context **Materials and Methods:** A descriptive, qualitative-quantitative study was carried out through an anonymous online questionnaire, with 17 closed option items and 25 Likert 1 to 5 scale options. Residents of all specialties were eligible. Only GFM results are reported in this poster. **Results:** 99 residents of GFM responded (out of a total of 1595 total responses), 86.9% female, average age  $31.6 \pm 4.7$ , 70% lived in Buenos Aires Province and in the Capital City, and 81 % work in public institutions. 97% admitted tasks reorganization, and 49.7% referred to having assumed tasks that were not related to their training program. This proportion was above the mean of all surveyed (87% and 42.1% respectively). The perception that residents took part in the organizational changes had a mean of  $2 \pm 1.1$ , the adequate availability of supplies and personal protection was perceived with a mean agreement of  $3.6 \pm 1.3$ . Agreement with the statements: "lectures were reduced" has a mean  $3.8 \pm 1.3$ ; "rotations were discontinued" mean  $4.6 \pm 1$ ; "increase use of virtual learning tools" a mean  $4 \pm 0.9$ . The agreement on "being supervised while performing a task" had a mean of  $2.5 \pm 1.2$ . Residents from private institutions had availability of PPE to a greater extent than those of public management ( $p = 0.02$ ). Strengthening ties with own families were perceived as positive ( $> 2.5$ ) and the effects on health due to stress and social distancing as negative. The need to seek professional help to cope with stress had a mean of  $2.8 \pm 1.5$ . **Conclusions:** The GFM residency training was affected by the pandemic and different aspects including organizational structure, learning, and personal health. Pivot learning and new strategies are recommended to mitigate the pandemic negative impact on training. Specific measure

regarding residents' wellbeing is needed to cope with pandemic- provoked stress and work overload.

#### **447 Lessons Learned From Developing an Educational Intervention for Primary Care During the COVID-19 Pandemic in Chile**

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##### **Description:**

**Background:** ANCORA-UC Health Innovation Center (CISAUC) works on the design, implementation and evaluation of innovative health care models in Chile. In order to address gaps in the current operating model for primary care, the team is developing a comprehensive strategy for the care of pregnant women, infants, children and adolescents, with a focus on patient-centeredness. **Description:** The proposed strategy includes a training program for primary care health workers, to address known gaps between knowledge and practice. The training program will provide health teams with knowledge and skills improvement and a space for reflective practice. Implementation was planned for 2020, but due to the COVID-19 pandemic it was postponed and transformed to an online training program. Lessons learned from this process are presented in the desire to help other teams facing similar challenges. **Lessons Learned:** The use of technology allowed contact with other educational teams dealing with similar issues, facilitating sharing of experiences, mentoring and peer support. Also, it made collaboration possible, through video recorded lessons accompanied with distant synchronous activities. Redesign of the program allowed further development of potential areas of improvement, taking into consideration the changes in educational context. Having a partner engaged in this process implied reaching common ground and to form a shared vision about what to transform in the new program model and how to do it. The main challenge encountered was in the area of providing effective teaching and instruction for communication and interpersonal skills in a completely online environment, without "real-world" practice. **Conclusion/Next steps:** The COVID-19 pandemic has completely changed our practices and approach to supporting training of health care workers. Multidisciplinary work, networking with peers and mentors and finding creative solutions to problems were found to be key to a successful adaptation in this changing context. Online education is now a reality and it allows us to deliver continuing education programs even in times of social distancing. In the future, it will be necessary to evaluate if this approach is as effective as in-person training programs for building capacity, changing practices and increasing satisfaction of healthcare users.

#### **448 Mental Health Stigma and Telemedicine**

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### **Description:**

**Objective:** This study was derived from the confluence of several factors, namely, the prevalence of a complex array of mental health issues across Al Dhafra Rural Region of Abu Dhabi, the lack of mental health professionals in the region, the stigma associated among the population with regards to mental disorders, the resultant feasibility/acceptance of this service, and uncertain outcomes. Tele-psychiatry through telemedicine (TM) was seen as the potential method to ameliorate these problems. **Methodology:** A Survey Design was used in this research that probed stakeholders through a Tele-psychiatry Usability Questionnaire (TPUQ). The participants of the questionnaire were divided into two groups namely: 1. patients appointed for the Tele-psychiatry clinic and 2. The healthcare provider team who were involved in offering the Tele-psychiatry service. The TPUQ was designed to be a comprehensive questionnaire that covered usability factors, such as usefulness, reliability, reduced stigma as well as satisfaction of the stakeholders. **Results:** The results of the survey revealed positive responses from both patients and healthcare providers in reporting that the service is immensely useful in reducing stigma associated with mental disorders. The service was accepted for its convenience and adaptability in a rural area where there is no availability of psychiatry specialty services. The Tele-psychiatry Usability Questionnaire (TPUQ) ratings by factor were compared using Cronbach's coefficient alpha. The usability factors were found to be within the ranges of internal consistency/reliability. Reduction of stigma associated with mental disorders through Tele-psychiatry also showed positive outcome of acceptability by both study groups of patients ( $\alpha = 0.872$  "Good") and healthcare providers ( $\alpha = 0.902$  "Excellent") alike. **Conclusion:** Our results and evidence of diminishing stigma support the use of Tele-psychiatry interventions in patients with mental health concerns. Tele-psychiatry makes care accessible in areas with limited or no professional psychiatrists and has the potential to mental healthcare in primary care settings.

Keywords: Telemedicine, Tele-psychiatry, Mental Health, Stigma

### **449 Obstructive Sleep Apnea in Obese Patients: A UK population analysis**

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### **Description:**

**Background:** Obstructive sleep apnea (OSA) is an increasingly common disorder associated with increased cardiovascular disease, mortality, reduced productivity and an increased risk of road traffic accidents. A significant proportion of patients with OSA in the

UK are undiagnosed. This study aims to identify risk factors for OSA in an obese cohort.

**Method:** A population-based study was conducted of obese patients (BMI  $\geq 30$  kg/m<sup>2</sup>) from the Clinical Practice Research Datalink (CPRD). A logistic regression model was used to calculate odds ratios (ORs) for developing OSA according to other clinicopathological characteristics. Multivariate analysis was conducted of individual factors that affect the propensity to develop OSA. Statistical significance was defined as  $p < 0.050$ . **Results:** From 276,600 obese patients identified during a data extraction of the CPRD in July 2017, the prevalence of OSA was 5.4%. The following risk factors were found to be independently associated with increased likelihood of OSA: male sex (OR = 3.273;  $p < 0.001$ ), BMI class II (OR = 1.640;  $p < 0.001$ ), BMI class III (OR = 3.768;  $p < 0.001$ ), smoking (OR = 1.179;  $p < 0.001$ ), COPD (OR = 1.722;  $p < 0.001$ ), GERD (OR = 1.557;  $p < 0.001$ ), hypothyroidism (OR = 1.311;  $p < 0.001$ ), acromegaly (OR = 3.543;  $p < 0.001$ ) and benzodiazepine use (OR = 1.492;  $p < 0.001$ ). Bariatric surgery was associated with reduced risk of OSA amongst this obese population (OR = 0.260;  $p < 0.001$ ). **Conclusions:** In obese patients there are numerous comorbidities that are associated with increased likelihood of OSA. These factors can help prompt clinicians to identify undiagnosed OSA. Bariatric surgery appears to be protective against developing OSA.

#### 450 Preferences and Practices for Location of Death: A narrative literature review

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##### Description:

**Context:** Cultural safety is necessary for all medical care and especially when patients are approaching end-of-life. At that time, cultural traditions and the presence of family and friends are vital to patients at their most vulnerable. **Objective:** To describe what is currently known about location of death and patients' preference regarding location of death, comparing Indigenous and non-Indigenous populations within Canada and globally. **Design:** Narrative (non-systematic) literature review of research articles from 2010 to March 2021. Databases searched include PubMed, CINAHL and PsychInfo, using combinations of: "place of death or dying location or location of dying or location of death"; "Indigenous or Aboriginal or First Nations"; "terminal care and/or palliative care or hospice care"; "preferred place death and actual place of death". Google Scholar, Google and OneSearch were also searched generally. Reference lists of selected articles were scanned for relevant articles. A total of 21 articles were accepted after title, abstract, and full-text review. **Results:** The proportion of hospital deaths in Canada steadily increased since 1950 to peak at 80.5% in 1994, thereafter declining to 43.9% by 2015. By contrast, the proportion of home deaths in Canada has increased over 2006-2015. International trends vary, as Britain has demonstrated an increasing proportion of home deaths, compared to Norway and Germany where nursing home/hospice deaths are increasing, or Portugal where hospital deaths continue to rise. While most people prefer to die at home, the actual location of death suggests barriers to this exist. Several Indigenous



populations in Canada and Australia have demonstrated a preference for dying at home in their community; however, the Māori in New Zealand did not. Many rural/remote Canadian populations have higher proportions of hospital deaths compared to urban. A community-based palliative care program in an Alaska Native community helped increase the proportion of home deaths from certain causes from 33% to 77% over a 5-year period. **Conclusions:** Many but not all populations studied show a majority of patients would prefer a home death to a hospital death. However, the proportion of actual deaths occurring in hospital is widely higher than that of home deaths for most populations.

#### 451 Preliminary Exploration on the Second Classroom of Palliative Care in General Practice in Nanjing

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##### **Description:**

**Background:** With the accelerated pace of aging in China, the average life expectancy is generally extended. People have higher requirements for the quality of life and more understanding about death, and pay more attention to palliative care. **Purpose:** The second classroom of palliative care aims to guide resident training physicians to correctly recognize death, to be familiar with the psychology of dying patients and their families.

**Methods:** From the total number of cases provided by the 96 general practice resident training physicians with standardized training in Nanjing Jiangning hospital from January to December 2020, 48 cases were randomly selected as the experimental group, and the remaining cases were used as the control group. **Training content:** The trainees used the palliative medical knowledge they learned to conduct doctor-patient communication drills, organized group discussions and role-plays. Each group consists of 5-6 resident training physicians and 1 teaching teacher. Among them, one resident training physicians plays the role of the patient, and two play the role of family members. After the end of the teaching activities, an examination (30% of theoretical knowledge, 30% of humanities medicine, 40% of clinical thinking ability) and questionnaires were used to evaluate the teaching effect. SPSS26.0 statistical analysis software was used for statistical processing. The two groups are compared by independent-samples T test.  $P < 0.05$  indicates that the difference is statistically significant. **Results:** (1) There was no significant difference between the two groups of total assessment scores (out of 100), however, the scores of humanities medicine (out of 30) were significantly different ( $P < 0.05$ ); (2) Resident training physicians' satisfaction with the activities of the second classroom was higher than the control group. **Discussion:** The results of humanities medicine in the experimental group were better than those in the control group, which indicated that conducting the second classroom in general practice residency could help to develop the students' comprehensive care ability for hospice patients and families. The development of a second class in GP residency training as a beneficial extension for residents can improve their empathy, innovation and ability to hospice patients and families.

## 452 Prevalence of Obesity Among Hypertensive Patients Seen in the Internal Medicine Department of IME-Kimpese Hospital, DR Congo

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### Description:

**Background:** Obesity is an important risk factor for cardiovascular diseases and particularly in hypertensive patients. Its prevention and early treatment are indicated to prevent further complications. Data on obesity associated with hypertension in sub-Saharan Africa are scarce and the lack of literature on obesity in the province of Kongo-Central was the main motivation for this study. **Aim:** To explore the association of obesity with hypertension and other associated risk factors. **Methods:** In this retrospective descriptive study, data were collected from medical records for attended hypertensive patients from January to December 2014 in the Internal Medicine Department of the IME-Kimpese Hospital. This hospital is one of the biggest hospitals in the Kongo-Central province with a capacity of 400 beds. Kimpese is a city which is 220 km away in the west of Kinshasa, Democratic Republic of the Congo (DRC). Hypertension was defined as BP $\geq$ 140/90mmHg or every patient under antihypertensive treatment regardless of the level of blood pressure. Obesity was defined as a BMI greater than or equal to 30kg/m<sup>2</sup>. All medical records with incomplete data were discarded. Pearson's chi-square test or Fischer's, Student's and Mann Withney's test were used to compare proportions, means and medians respectively. The adjusted OR was calculated using a 95% confidence interval. P<0.05 defined the significant threshold. **Results:** Of the 903 patient records seen during the study period, 303 were diagnosed hypertensive (33.5%) and only 53 records were usable as they met the eligibility criteria. Of the selected patients, 64.2% were female and the mean age was 58.8 $\pm$ 11.7 years. The median duration of hypertension was 3(2-4) years. Hypertension was associated with diabetes mellitus in 46% of cases. The overall incidence of obesity in this population was 45.3%. Diabetes (adjusted OR 13.4 95% CI [1.86-96.10], p=0.010), female sex (adjusted OR 16.7 95% CI [1.84-151.88], p=0.012), and pulse pressure (adjusted OR 1.1 95% CI [1.02-1.18], p=0.016) emerged as the major determinants of obesity. **Conclusion:** Despite the limitations of this study due to the methodology used, the current study suggests that obesity is common in hypertensive patients and the association with gender, diabetes mellitus and pulse pressure has been found.

## 453 Prospective Evaluation of Efficacy and Adherence of Intravenous Iron in Management of Iron Deficiency Anaemia

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### **Description:**

**Background:** Worldwide, most common nutritional deficiency anaemia is iron deficiency anaemia. Iron is a key element in the transport and utilization of oxygen and a variety of metabolic pathways. Iron deficiency is a major cause of anaemia and can be associated with fatigue, impaired physical function and reduced quality of life. This burden exists in our context as well and we are trying to establish local treatment protocols. **Aim:** To establish the efficacy, safety and adherence of intravenous iron in patients who were intolerant to oral iron formulations (Ferrous Fumarate, Ferrous sulphate, Ferrous Gluconate) available in Al Dhafra Family Medicine Centre. Oral iron is the first line treatment for iron deficiency, however it sometimes cannot be tolerated due to its side effects, relatively slowly response in urgent conditions such as heavy menstrual bleeding, or cannot be used in certain conditions such as pregnancy (second and third trimester), and post certain bariatric surgeries. **Materials and Methods:** Prospective, observational, centre-based study carried out in 178 patients (aged 14-59 years), having haemoglobin less than 12g/dl, serum ferritin less than 13 mcg/l and MCV (Mean corpuscular volume) less than 76. One hundred seventy-eight patients were given 200mg to 1000 mg of intravenous iron in divided doses according to patient's body weight and current haemoglobin levels. Data was collected after four to eight weeks of intravenous iron infusion for haemoglobin and serum ferritin estimation. **Results:** An improvement of haemoglobin was observed with intravenous iron sucrose. The mean haemoglobin was increased from  $10.27 \pm 1.37$  gm/dL to  $11.97 \pm 1.33$  gm/dL after four weeks. Similarly, a significant improvement in serum ferritin was also observed where the mean was increased from  $7.55 \pm 4.58$  mcg/L to  $97.73 \pm 68.76$  mcg/L after intravenous iron therapy. **Conclusion:** Intravenous iron therapy can replace oral therapy in patients whose blood parameters must be raised rapidly and in situations where oral iron administration would not be appropriate for any reason.

Keywords: Intravenous Iron, Haemoglobin, Ferritin, Anaemia

### **454 Staying Connected With Social Media During Social Distancing**

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### **Description:**

**Context:** Effective strategies in communication of health risks are essential to protect communities during this rapidly evolving COVID-19 pandemic. Language barriers, social, economic and cultural factors can limit newcomers' compliance with public health

directives. Due to imposed physical distancing, many settlement agencies have suspended in-person services, and access to credible information is challenging for newcomers. This leads to perplexity and anxiety, putting newcomers in an increasing vulnerable position.

**Objective:** The objective of the study was to provide credible and easily comprehensible information, helping newcomers to better comply with the public health directives implemented to manage the COVID-19 pandemic. **Design:** Language-assisted information workshops were delivered virtually between July 2020 – April 2021 in collaboration with Regina Immigrant Women Center. Adherence to public health directives and intervention effectiveness was explored through three focus groups. **Participants:** Forty-nine newcomers aged 20 years and older whose length of stay in Canada was less than 5 years attended. **Intervention:** Health information on COVID-19 included related risks, prevention, physical distancing, general information on vaccines, and the provincial vaccine roll-out plan. Additionally, strategies to maintain physical, social and mental health were presented. At the request of the participants, two additional workshops on mental health were provided. **Results:** The participants were compliant with public health directives such as masking in public places, usage of hand sanitizers, and physical distancing. Vaccine acceptability and compliance with provincial vaccine roll-out were high. The workshops were well received, and the participants were satisfied with the informational content. Many participants expressed difficulty adjusting to government mandated restrictions. Also listed as challenges were the combined effects of social isolation and adjusting to a new country during the pandemic. Many of the participants exhibited some uncertainty of their future given a perceived lack of options, exacerbated by the pandemic. **Conclusion:** Language-assisted workshops were effective in disseminating public health directives, and engaging vulnerable groups in following such measures. The interactive workshops allowed information to be tailored towards specific needs of newcomers. It is noted that the participants themselves requested additional workshops on mental health and stress management; This highlights the impact of the pandemic on mental wellbeing.

#### **455 Strengthening Global-Local “Listening and Learning” Through a Novel Virtual Series on Global Primary Care Delivery**

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#### **Description:**

**Context:** The pandemic has illustrated the need for continued innovations in the organization and delivery of primary healthcare (PHC) services to address persistent health inequities. To energize efforts towards this goal, we developed a novel learning series to generate critical discourse around strategies to enable equitable PHC systems, with a focus on local-global sharing. **Approach:** The “Global Primary Care (GPC) Delivery Series” was a virtual, synchronous six-month Webinar and Workshop Series developed collaboratively by the McGill University's School of Population and Global Health (SPGH) and the Department of Family Medicine. It engaged faculty, clinicians and students from across the university and broader Quebec community. Via panel discussions, the Webinar Series examined innovative approaches to the delivery of primary care in both local and global settings featuring perspectives from industry, non-profit, and Indigenous partners. The Workshop Series explored pre-selected topics (i.e., mental health, chronic disease management, private-public partnerships) in greater depth through focused readings and guided informal discussions in small groups. **Outcomes:** On average, 42 participants (range 25-71) attended the Webinar Series and 25 participants (range 13-37) attended the Workshop Series. Speakers from Canada (Ontario, Saskatchewan, Quebec) and internationally (Bangladesh, Liberia, USA, and the UK) presented on a range of PHC delivery models leveraging community health workers, digital technologies, traditional Indigenous practices, and other novel approaches. A short post-series survey of attendees – response rate 22%) indicated that most participants (76%, 13/17) attended both webinars and workshops for at least one session (35%, 6/17). Participants agreed that the Series successfully achieved its various goals of intersectoral, interdisciplinary global-local learning (range 4.35-4.7/5.0 across 5 measures). Through post-workshop debriefings and email discussions, three ‘lessons learned’ were identified: (1) the importance of cultural and contextual sensitivity in PHC delivery; (2) re-imagining modalities of care through global-local discourse and partnerships; and (3) leveraging inter-sectoral perspectives to strengthen PHC in Canada and beyond. **Conclusions:** The GPC Delivery Series highlights the demand for knowledge-sharing initiatives and the value of animating PHC principles in addressing health disparities exposed and amplified by the pandemic. Future educational initiatives should consider scaling up this collaborative learning model.

#### **456 The Impact of COVID-19 Pandemic on Medical Residents’ Well-being in the Emirate of Abu Dhabi**

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#### **Description:**

**Background:** The novel Coronavirus disease (COVID-19) was declared a global pandemic on March 11th, 2020. As of July 7th, 2021; a total of 644,114 confirmed cases and 1,847 deaths were reported in the United Arab Emirates. The psychological effect of the pandemic on medical residents has not been widely assessed when compared to other COVID-19 pandemic related topics. **Aim:** This study aims to assess the impact of COVID-19 pandemic on medical residents' well-being, in regard to depression and stress.

**Methodology:** A cross-sectional study was conducted in Abu Dhabi; where a total of 597 medical residents were identified and then 242 were included in the study via random selection. Data was collected via an online survey utilizing Patient Health Questionnaire (PHQ-9) and Perceived Stress Scale (PSS-10). SPSS software was used for data analysis, where Chi-Square test, Odd ratio, and 95% CI were applied, with an accepted significance level of  $P < 0.05$ . **Results:** Majority of medical residents in our study were females (73.6%) and single (60.7%). Most of those surveyed were living with their families (53.3%), and only (5%) were living with friends/roommates. Around 66.5% of the residents were depressed, 87.2% were under low-moderate stress while 12.8% were under high perceived stress. In regard to depression, 73.5% of the single residents were depressed ( $P = 0.016$ ). Being male was found to reduce the risk of developing depression (OR 0.545 [0.302-0.983],  $P = 0.042$ ). The unavailability of the PPE and the need to change housing for family protection were found to increase the risk of developing depression (OR 4.222 [1.586 - 11.242],  $P = 0.019$ ), (OR 2.063 [1.105 - 3.854],  $P = 0.022$ ), respectively. In regard to stress, residents who were living with their friends/roommates were found to be under higher level of stress versus other living arrangement ( $P = 0.001$ ). On the other hand, general surgery and other surgical specialties' residents were found to be the most under high stress ( $P = 0.044$ ). **Conclusion:** Female gender, single status, PPE unavailability and change of housing were risk factors for developing depression. On the other hand, living with friends/roommates and being in surgical specialties were influencers for high stress level.

#### **457 Time Trends and Factors Associated With the Use of Intrauterine Devices in Sao Paulo, Brazil: An ecological study**

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#### **Description:**

**Introduction:** In developing countries, there is a pressing need of over 200 million women and girls who want to avoid, space, or delay becoming pregnant and yet have no access to or knowledge of effective contraception methods. Among the available methods, intrauterine devices (IUDs) are considered being highly effective. Despite global efforts in removing barriers to the access and use of contraceptives, the situation is only slowly progressing in the use of IUDs. This research aims at gaining better understanding of the current trends in and factors associated with the use of IUDs in the city of Sao Paulo, Brazil. **Methods:** Population-level data on IUD usage rates among female aged 15 to 54 years, socio-demographic variables as well as factors describing the history of childbearing or motherhood were extracted from Sao Paulo's municipal website "TabNet." Data was aggregated at subprefecture level and stratified by age and year. Descriptive analysis, as well as linear mixed effect models were used to characterize time trends in IUD use. In addition, leveraging on recent developments in supervised machine learning, so called random forests were fitted to the data to assess variable importance for predicting IUD usage levels based on the ecological factors considered in this study. **Results:** An increase in IUD use was observed across 31 out of 32 subprefectures of the city of Sao Paulo between 2017 and 2019 (average annual increase: 6/10,000; 95% confidence interval: 5/10,000 to 7/10,000). IUD uptake was largely heterogeneous across subprefectures and age groups. The random forest model explained 83% of the variability in IUD usage rates. The most critical predictor variables identified as age, marital status, number of previous children, and gestational age distribution at delivery for women with previous births. **Conclusion:** Despite the descriptive and associational nature of the findings of this study, the results indicate that implementation of IUD procedures (and their uptake) varies largely across areas within the city of Sao Paulo. Within the local context of the metropolitan, lessons on how to increase IUD uptake may be learned from areas that were identified of having higher and faster growing IUD usage rates.

#### 458 Tuberculosis and Family Physicians During the COVID-19 Pandemic in Indonesia (In progress)

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#### Description:

**Background:** During the first year of the COVID-19 pandemic (2020), there has been a global reduction of Tuberculosis (TB) treatment of 21%, totalling more than 1.4 million TB patients missing out on services. The highest decrease of TB services was reported in Indonesia (down 42%), followed by the Philippines (37%) and India (25%). Today, Indonesia has the second-highest TB prevalence, following India. The reduction of TB and

other communicable diseases, such as malaria and HIV, is critical for Sustainable Development Goals on health and well-being. The world's poorest people are at higher risk of developing TB. More than 1 million people live with TB in Indonesia, and TB contributed to more than 10 000 deaths per year. The COVID19 pandemic posed challenges to delivering services, contact-tracing, timely TB diagnoses, delivery information, education, and communication about TB to the affected communities, resulting in increased TB-MDR (Multiple Drugs Resistant) and mortalities. Between April and July 2020, the Indonesian Association of Family Physicians (PDKI: Perhimpunan Dokter Keluarga Indonesia) and the Indonesian National Committee on Disaster Management (BNPB: Badan Nasional Penanggulangan Bencana) launched a joint initiative to mitigate the impact of the pandemic on the TB communities. More than 500 family physicians in Indonesia participated in this programme. Individual physicians formed WhatsApp groups to reach out to their service-communities in 20 out of 34 provinces in Indonesia. Hundreds of WhatsApp groups were created within four months, involving thousands of group memberships. Most of these WhatsApp outreach programmes are continuing today. To our knowledge, this innovative strategy is the first of its kind ever been conducted in Indonesia. **Research aim:** This research aims to explore the family physicians' and communities' perceptions and application of their knowledge to improve TB services, contact-tracing, and educate communities on COVID-19 and TB in Indonesia. **Method:** This is a pre and post intervention study to TB patients, using WhatsApp media, video call, and structured questionnaire.

Keywords: TB, Covid-19, Family Physicians