Dalhousie University

Primary Health Care Research Day

4^{th} ANNUAL RESEARCH DAY

Wednesday, May 17, 2017
8:30 a.m. to 4:30 p.m.
Four Points Sheraton Hotel
Admiral Room
1496 Hollis Street
Halifax, NS
Remote access: http://dal.adobeconnect.com/mumford

Sponsored with the generous support of

CoR-PHC
Collaborative Research
in Primary Health Care

DALHOUSIE UNIVERSITY

nova scotia health authority

CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

NOVA SCOTIA Health Research FOUNDATION

MSSU - USSM
MARITIME SPOR SUPPORT UNIT
UNITÉ DE SOUTIEN SRAP DES MARITIMES

BRIC NS
Building Research for Integrated Primary Healthcare

Strategy for Patient-Oriented Research
SPOR
Putting Patients First

Contents

Primary Health Care Research Day 2017

Overview

May 17, 2017 | 8:30 am – 3:30 pm
Four Points by Sheraton, 1496 Hollis St. Halifax

#PHCResearchDay

Unless otherwise specified, events are in the Admiral Room

7:30 – 8:30 am *Will be available for remote attendance	**Clinician Breakfast** Integrating research into clinical care – Action research and learnings from the EXTRA Project Presenters: Jeannie Haggerty, PhD Professor Dept. of Family Medicine, McGill University Crystal Todd, MD, CCFP Department Head, Family Practice Nova Scotia Health Authority (Western Zone) **Note:** Separate registration is required to attend this event
8:30 am	**Poster Set Up** Location: Navigator Room & Admiral Room
8:30 – 9:00 am	**Registration & Breakfast**
9:00 – 9:10 am	**Opening Remarks** Fred Burge, MD, FCFP, MSc, CoR-PHC Co-Lead Professor and Research Director, Dept. of Family Medicine, Dalhousie University
9:10 – 10:10 am *Will be available for remote attendance	**Keynote Address: What has a health services researcher learned about quality improvement?** In this lecture, Dr. Haggerty will discuss lessons learned in creating successful research projects. Many of the required skill sets are from outside of traditional health research, including project management, governance and implementation science. Presenter: Jeannie Haggerty, PhD Professor Dept. of Family Medicine, McGill University
10:10 – 10:25 am	**Break**

10:25 – 11:25 am	**Poster Session** Posters highlighting current primary healthcare research in Nova Scotia from healthcare providers, students, policy makers and researchers. Includes the BRIC NS Student Poster Award. Location: Navigator Room & Admiral Room
11:30 am – 12:05 pm	**Research as a function of health services delivery** Presenters: Tara Sampalli, PhD Director of Research and Innovation Primary Health Care & Chronic Disease Management, Nova Scotia Health Authority Jo-Anne Wentzell, BScN, PDt, M.Ad.ED (c) Director, Primary Health Care & Chronic Disease Management Nova Scotia Health Authority (Western Zone)
12:05 – 12:55 pm	**Lunch** Participants will have the opportunity to visit tables staffed by experts on research methodology and development.
12:55 – 2:30 pm	**Presentations: Primary Healthcare Research** (concurrent) Presentations highlighting current primary healthcare research in Nova Scotia from healthcare providers, students, policy makers and researchers. Location: Admiral Room, Compass Rooms A, B, C
2:30 - 3:15 pm	**Working with vulnerable populations** Three presentations related to work with vulnerable populations were selected from abstract submissions. Drs. Fred Burge and Jeannie Haggerty will facilitate an open discussion and response to presentations.
3:15 – 3:20 pm	**Presentation of BRIC NS Student Poster Award** Beverley Lawson, MSc Director BRIC NS Network
3:20 – 3:30 pm	**Closing Remarks** Fred Burge, MD, FCFP, MSc

CoR-PHC
Collaborative Research
in Primary Health Care

Primary Health Care Research Day 2017

Clinician Breakfast

7:30 – 8:30 am | Admiral Room
#PHCResearchDay

Dr. Jeannie Haggerty, Professor, McGill Research Chair (Family & Community Medicine), McGill Department of Family Medicine, will present on action research to integrate research into the clinical world. Dr. Haggerty will discuss ways that practice problems can be turned into research projects to improve care delivery.

Dr. Crystal Todd, Chief, Department of Family Practice (Nova Scotia Health Authority – Western Zone) will present on learnings from the EXTRA Project on developing and implementing an operational framework to integrate a palliative approach into primary healthcare settings. This represents a shift in palliative care models from a specialized program to a person and family-centered approach that can be delivered in a home environment. Dr. Todd will discuss lessons learned in implementing this strategy.

7:30 – 7:35 am	**Welcome** Dr. Fred Burge CoR-PHC Co-Lead Professor and Research Director, Dept. of Family Medicine, Dalhousie University
7:55 – 8:15 am	**Dr. Crystal Todd** Department Head, Family Practice Western Zone, Nova Scotia Health Authority
7:35 – 7:55 am	**Dr. Jeannie Haggerty** Professor Dept. of Family Medicine, McGill University
8:15 – 8:30	**Facilitated Discussion** Dr. Fred Burge CoR-PHC Co-Lead Professor and Research Director, Dept. of Family Medicine, Dalhousie University

This session will be available by Adobe Connect: http://dal.adobeconnect.com/mumford

DALHOUSIE UNIVERSITY BRIC NS Building Research for Integrated Primary Healthcare MSSU - USSM MARITIME SPOR SUPPORT UNIT UNITÉ DE SOUTIEN SRAP DES MARITIMES nova scotia health authority

Primary Health Care Research Day 2017

Keynote Address

9:10 – 10:10 am | Admiral Room
#PHCResearchDay

What has a health services researcher learned about quality improvement?

In this lecture, Dr. Haggerty will discuss lessons learned in creating successful research projects. Many of the required skill sets are from outside of traditional health research, including project management, governance and implementation science.

Jeannie Haggerty, PhD
Full Professor
McGill University

Holder of the first McGill Chair in Family and Community Medicine Research, based at St. Mary's Hospital Centre and McGill University in Montreal, Dr. Haggerty's domains of research are the factors related to accessibility and quality of primary care, particularly the impact of health system policies and reforms.

Her current research program focuses on the measure of patient experience with patient- centered and effective primary health care and how these measures relate to changes in organizational and professional practices. She is Nominated Principal Investigator of a Canada- Australia research program that aims to improve access to primary health care for socially vulnerable populations. She is also Scientific Director of the Québec Primary Health Care Knowledge Network, Réseau-1 Québec.

Her goal is to present the public voice in a clear way to healthcare decision-makers on issues of equitable access and quality of healthcare.

This session will be available by Adobe Connect: http://dal.adobeconnect.com/mumford

Primary Health Care Research Day 2017

Poster Session

10:25 – 11:25 am | Navigator Room & Admiral Room
#PHCResearchDay

Posters highlighting current primary healthcare research in Nova Scotia from healthcare providers, students, policy makers and researchers. Building Research for Integrated Primary Healthcare (BRIC NS) is pleased to offer an award for best student poster given at Primary Healthcare Research Day. Eligible posters are marked with an asterisk.

	Presenter	**Title**
1*	Alysia Robinson	Community variation in hospital length of stay: an indicator of community transitional care
2*	Dominique Shephard	The gaps and significance of family caregiver support in primary health care
3*	Graham Wilson	Did the Canadian Pediatric Society Policy Statement in 2007 impact trampoline-related injuries in Halifax, Nova Scotia?
4	Graham Wilson	Evaluation of open access stress testing referrals by Capital Health family physicians in Nova Scotia
5*	Holly Mathias	Understanding the Experience and Perceptions of Rural NS Youth When Accessing Mental Health Services and Supports
6*	Laura Miller	Play, Sleep and Be Healthy: The Association Between Physical Activity, Outdoor Play and Sleep Among Preschool-Aged Children
7*	Laura Miller	The Effect of Sleep Restriction on Emotions in Typically Developing Children and Children with ADHD.
8*	Michael Reid	Small Area Variations in Unplanned Repeat Hospitalization in Nova Scotia
9*	Myles O'Brien	The Effect of Previous Training on Perceptions and Practices of Physical Activity Counselling and Exercise Prescription Among Health Care Providers Across Nova Scotia
10*	Elizabeth Munn	“We are the little person”: A qualitative study of refugee experiences with primary care
11*	Trishla Shah	Improving functional independence in individuals with early to moderate stage of Alzheimer’s disease: a technology innovation for patients and primary care providers
12*	Tristan Dorey	Knee-High Compression Socks Minimize Stroke Volume Reductions During Head-Up Tilt Following Dynamic Exercise In Healthy Young Adults
13	Adrian MacKenzie	Why is the number of Nova Scotians without a family physician rising?
14	America Fracini	The Patient Reported Inventory of Self-management of Chronic Conditions (PRISM-CC): A New, Comprehensive Patient Reported Outcome Measure to Guide and Tailor Care
15	America Fracini	Variation in Self-Management Measures: A Scoping Review
16	Andrea Murphy	Using participatory action research techniques to identify and prioritize strategies for improving a community pharmacy-based mental health care program

17	Beth McDougall	Improving outcomes of depression through person-centered measurement-based care and individualized feedback
18	Beverley Lawson & Fred Burge	Implementing the 'Frailty Portal' in Community Practice: Feasibility, impacts and expansion needs
19	Carla Purcell	A Fracture Liaison Service specifically designed to address local government concerns can be effective
20	Courtney Heisler	Patient wait time recall accuracy for gastroenterology specialty consultation in Nova Scotia
21	Dominika Wranik	Financial Models, Professional Hierarchy and Collaboration in Interdisciplinary Primary Care
22	Elizabeth Michael & Ashley Ryer	A primary health care strategy to include patient and family advisors in quality and decision-making process
23	Helena Piccinini-Vallis	Exploring Nova Scotia Women's Gestational Weight Gain Goals Using the Theory of Planned Behaviour
24	Helena Piccinini-Vallis	Gestational weight gain and childhood body mass index values: a cohort study using primary care data in Nova Scotia
25	Kothai Kumanan	Building Provider, Team, and System Capacity: A Case Study of an Implementation Journey
26	Laura Allen	Development of a universal screening program for hearing loss across Canada and globally
27	Lisa Sutherland	Community Health Teams: Free Health and Wellness Programs
28	Mardi Burton	Primary Health Care Initiative: Using a PHC partnership model to enhance accessibility to insulin initiation for patients in rural NS
29	Michele LeBlanc	Prospective observatory study of group visits in Primary Health Care in Nova Scotia – towards better access, continuity of care, and better outcomes
30	Maritime SPOR SUPPORT Unit	Maritime SPOR SUPPORT Unit: Building capacity for patient-oriented research and improved health outcomes for Maritime communities
31	Natalie Kennie-Kaulbach	Pharmacist Integration into Primary Health Care Teams in Nova Scotia
32	Olga Kits	What is it like to receive medications in a long-term care facility? Exploring experiences by long-term care residents of everyday processes around medications
33	Rudolf Uher	Personalized Indications for Cognitive Behavioural Therapy and Antidepressants in the Treatment of Major Depressive Disorder and Persistent Depressive Disorder
34	Stephanie Blackman	Comparative case study of strategies to improve primary health care human resources in three provinces
35	Yukiko Asada	A promise of dot charts for effective graphic communication on health inequalities
36	Mathew Grandy	Developing a case definition for congestive heart failure using primary care EMR data

Primary Health Care Research Day 2017

Concurrent Oral Presentations

12:55 – 2:30 pm | Admiral Room & Compass Rooms A, B, C
#PHCResearchDay

	Admiral Room	Compass Room A	Compass Room B	Compass Room C
12:55 1:10	**Dominika Wranik** The impact of pay-for-performance in primary care on availability of services: Nova Scotia and New Brunswick	**Ashley Harnish** Stepping up on Quality in Senior Care: learning from data and quality monitoring, and audit-feedback process	**Joelle Monaghan** Understanding how mothers access information and support through online and offline social networks: what primary care providers need to know	**George Kephart** Using Research on Community Variations in Health Outcomes to Inform Realist, Systems-Based Approaches to Primary Care Transformation
1:15 1:30	**Kelly Lackie** Examination of the effects of interprofessional collaboration on health care provider and team productivity in primary health care: An important consideration in health human resources planning	**Cheryl Tschupruk** Integrating a Palliative Approach in Primary Health Care	**Britney Benoit** Direct breastfeeding as standard of care for procedural pain management in full term infants: A systematic evidence update	**George Kephart & Tara Sampalli** Designing Self-Management Supports Using a Client-Centred Lens and System Thinking
1:35 1:50	**Emily Gard Marshall** The more the better: a comparison of access, availability, and comprehensiveness of services between different models of primary health care (PHC) in Nova Scotia. Results from the MAAP-NS study	**Lindsay Sutherland** My emotional wellness matters: Primary Health Care initiative to enhance emotional wellness supports and management in a rural community	**Martha Paynter** Breastfeeding Support for Criminalized Women	**Martha Foley** Citizen, consumer, and patient roles in using publicly reported primary healthcare performance information: Lessons from citizen-patient dialogues in three Canadian provinces
1:55 2:10	**Michael Reid** Targeted Care for High-Cost Healthcare Users: Gaining knowledge from existing hotspotting programs	**Dayna Lee-Baggley** Translating Research into Practice: A Competency Framework for Behaviour Change Counselling	**Sara Rehan** Co-prescription of antipsychotic and antiparkinson medications: Adherence to guidelines and the STOPP (Screening Tool of Older Persons' potentially inappropriate Prescriptions) criteria in beneficiaries of the Nova Scotia Seniors' Pharmacare Program	**Fred Burge** Improving the performance reporting of primary care patient experience
2:15 2:30	**Alexis Goth** Shifting paradigm through integrative functional medicine in primary care	**Carla DiGiorgio** Inclusion of children with medical challenges in Nova Scotia schools	**Natalie Kennie-Kaulbach** Healthcare Providers' Knowledge, Attitudes, Beliefs, and Behaviours Toward Deprescribing: A Nova Scotia Pilot Project	**Braydon Connell** HOPES Student Run Health Centre: Opportunities for interprofessional education and increasing social responsibility

Primary Health Care Research Day 2017

Working with Vulnerable Populations Oral Presentations

2:30 – 3:15 pm | Admiral Room
#PHCResearchDay

Rural Community-Based Physical Activity Programming for People with Disability
Amanda Casey, PhD,
Associate Professor, Department of Human Kinetics, St. Francis Xavier University

This presentation discusses services of marginalized populations who are transitioning into community-based life by emphasizing the importance of continuing physical activity in everyday life. The presentation also discusses possible solutions and options for encouraging physical activity within community-based environments.

Improving primary care for refugee population in Nova Scotia: The Transitional Health Clinic initiative in Primary Health Care
Graeme Kohler, BSc, MA,
Health Services Manager, Primary Health Care, Nova Scotia Health Authority (Central Zone)

This presentation will demonstrate an increase in awareness of primary care needs of the patient population, better understanding of the needs of providers in supporting this vulnerable patient population, and the identification of core components required to successfully scale-up the initiative, engagement of primary care providers and improve care transitions for patients.

A Qualitative Evaluation of Pediatric Poverty Screening Techniques Used in Primary Care, and Barriers to Their Implementation
Laura Kerr, BScChe,
MD Candidate 2018, Dalhousie Medicine New Brunswick

Poverty is a significant public health concern across Canada; children living in poverty are more likely to experience poor health, both physically and mentally, than their more affluent peers. Primary care providers have the means to intervene, but many feel that they are unable to do so. This study looks at what barriers primary care providers experience when attempting to evaluate patients' social situations, and considers what strategies could be used in the future to mitigate these.

Primary Health Care Research Day 2017

Abstracts: Posters

#PHCResearchDay

Development of a universal screening program for hearing loss across Canada and globally

Laura Allen, Dalhousie University Medical School
Adam Rocker, Deanna Lammers, David Chan Chun Kong, Matthew Bromwich, Ashley Robinson

Intro: The purpose of the "iHear" study is to screen for hearing impairment in grades 1-2 children in Halifax. We aim to determine the incidence of hearing loss and improve rates of early intervention. In 2015, the Ottawa iHear team developed and tested a novel method of auditory testing. The project will be expanded to Halifax for the 2017/2018 school year. Interactive testing is performed through an iPad application called the "Shoebox Audiometer" which enables children to seek a sound stimulus through a game that assesses hearing sensitivity. Methods: In schools, the Halifax team will test 250-500 grades 1-2 children. Those with positive screens will be referred to an audiologist for workup of the hearing loss. Results: iHear has effective results. Since January 2015, Ottawa has screened 466 children. Thirty-two screened positive and were offered appropriate intervention. The application fills a large void. There is currently no automated hearing test technology for children in Canada. Based on Ottawa's results, we estimate that this study will improve our understanding of hearing loss in Halifax and allow for earlier detection and treatment. iHear intends to set the stage for the integration of iPad audiometry as a universal screening tool for children Canada-wide. Conclusions: Hearing plays a critical role in the development of communication skills. Undiagnosed hearing loss interferes with social, emotional, and cognitive development. Auditory testing is often expensive and labour intensive. Early childhood is a critical period for screening due to the lasting impact of hearing loss and the profound difference made by intervention.

A promise of dot charts for effective graphic communication on health inequalities

Yukiko Asada, Department of Community Health and Epidemiology, Dalhousie University

Health inequalities remain a key health policy concern globally, and graphs are a common communication tool to illustrate them. As a communication tool, graphs should be effective, conveying accurately the intended message to the target audience. Yet, the choice of graphs is often based on personal preferences, aesthetics, or familiarity, when it should be based on science. The psychophysics literature, largely unnoticed in health inequality communication, offers helpful suggestions for effective graphs. This literature defines effective graphs as those that allow easy and accurate decoding of visual cues in human brains. It shows that dot charts have easier and more accurate visual cues, thus, they are more effective than bar charts, arguably one of the most common types of graphs to display health inequalities. In this presentation, we introduce dot charts and show their versatility to depict common health inequality information.

Primary Health Care Initiative: Using a PHC partnership model to enhance accessibility to insulin initiation for patients in rural NS

Mardi Burton, Primary Health Services, Western Zone, NSHA
Lisa deMolitor

Can a network of community pharmacy partnerships improve access to timely insulin initiation for patients of Diabetes Centres living in rural areas of the Annapolis Valley? Increasing referrals to our Annapolis & Kings network Diabetes Centres (DC), growing wait times, and transportation challenges made it difficult to provide timely insulin initiation for patients in compliance with the Diabetes Care Program of Nova Scotia (DCPNS) guidelines. Diabetes Centre staff initiated a project to determine the impact of innovative partnerships among primary care providers, DC staff and community pharmacists on the accessibility of timely insulin initiation for patients. Qualified community pharmacists worked with DC staff to initiate insulin within the community resulting in shorter wait times, and in the case of some rural areas, shorter travel times. Wait time and patient satisfaction indicators and adherence to DCPNS guidelines were compared before and after project implementation. Implications for accessibility in remote and most vulnerable communities are discussed for the projects next steps.

Knee-High Compression Socks Minimize Stroke Volume Reductions During Head-Up Tilt Following Dynamic Exercise In Healthy Young Adults

Tristan Dorey, Dalhousie University, School of Health and Human Performance, Division of Kinesiology
Myles W. O'Brien, Susan Robinson, and Derek S. Kimmerly

Following a bout of dynamic exercise, larger reductions in cerebral blood flow (CBF) and stroke volume (SV) occur during head-up tilt (HUT), potentially leading to dizziness and/or fainting. This study tested the hypothesis that knee-high compression socks (CS) will mitigate reductions in SV and CBF during HUT following 60 minutes of moderate-intensity (60% VO2peak) cycling exercise. Ten young healthy volunteers (4♀; 22.62.1; 24.19.2 kg/m2) completed pre- and post-exercise 60° HUT tests (15-minutes) during randomized CS and Control (no CS) conditions. Changes in SV and CBF (Transcranial Doppler) were measured during HUT and preceding supine rest periods. CS attenuated the drop in SV (Control: -32.95.6%, CS: -24.311.6%; p=0.01) and CBF (Control: -25.15.8%, CS: -17.67.8%;p=0.02) during post-exercise HUT. There were similar (all, p>0.47) pre-exercise HUT-induced decreases in SV (Control; -23.111.5%, CS; -20.510.9%) and CBF (Control; -18.16.3%, CS; -15.3 9.0%).
The CBF difference between conditions was strongly correlated to the ratio of height/calf circumference (r=-0.82, p=0.007). CS appear to be an effective method of mitigating orthostatic reductions in SV and CBF following exercise. In order to standardize the recommendation of CS among primary care providers, future studies should investigate the relationship between the effectiveness of CS based on a combination of anthropometric parameters.

The Patient Reported Inventory of Self-management of Chronic Conditions (PRISM-CC): A New, Comprehensive Patient Reported Outcome Measure to Guide and Tailor Care

America Fracini, Dalhousie University
Tanya L Packer, George Kephart, Grace Warner, Åsa Audulv, Setareh Ghahari, Tara Sampalli, Lindsay Sutherland, Mardi Burton, Shawna Chenell, Lynn Edwards

Background: Integrated primary health care teams are increasingly recognized as best practice within the health care system, including in Nova Scotia. Meeting the complex, ongoing self-management needs of people with multiple conditions is fueling this change. Ability to assess all important aspects of self-management may improve provider and system effectiveness. A recent review exposed the lack of comprehensive and patient centered self-management outcome measures. Objective: To improve chronic condition management by developing a feasible, patient-centred measure of self-management, the Patient Reported Inventory of Self-management of Chronic Conditions (PRISM-CC). Methods: Development will conform to the PROMIS® Instrument Development and Validation Scientific Standard and use The Taxonomy of Everyday Self-Management Strategies Framework (TEDSS) as the conceptual model. Potential items have been located and tabulated. Confirmation of relevance, understanding, calibration of items, and identification of factors that will affect implementation of the PRISM-CC, will be addressed by prioritizing patient and provider input at all stages. Anticipated Results: PRISM-CC will have specificity to guide and tailor interventions, monitor change over time, and measure patient outcomes. It will be designed for patients with complex needs and/or multi-morbidity, whose self-management needs are the most difficult for providers and systems to meet.

Variation in Self-Management Measures: A Scoping Review

America Fracini, Dalhousie University
Åsa Audulv, Neda Alizadeh, Betsie van Gaal, Grace Warner, George Kephart, Tanya Packer

Background: Effective chronic condition management cannot occur without active patient self-management. In order to support patients, self-management providers need to assess and quantify all their self-management needs. Although many self-management measurement tools are available, confusion about what they are measuring is common. Without knowing what is being measured our ability to deliver appropriate care is limited. Objective: To assess whether self-management tools are measuring the same or similar concepts and concepts important to patients. Methods: A scoping review analyzed the theoretical foundations, definitions of self-management and the purpose behind development of 28 measurement tools. Tools with items indicative of active problem solving, decision-making, and/or autonomous judgement were included. Multidimensional tools were mapped to a patient-centred framework. Results: Despite all being identified by the authors as measures of self-management, the 20-condition specific and 8 generic measures showed wide variation in the definitions used (e.g self-management, self-care, self-efficacy) and underpinning theories (e.g. Social Cognitive Theory, Chronic Disease Self-Management Model, Transtheoretical Model). Multidimensional measures did not assess all areas important to patients. Conclusion: Self-management measures are not measuring the same concept. Primary care providers should exercise caution when selecting tools to guide clinical care or measure patient outcomes.

Developing a case definition for congestive heart failure using primary care EMR data

Mathew Grandy, Dalhousie Family Medicine
Mathew Grandy, Dylana Arsenault, Fred Burge, Brian Clarke, Mike Fleming, Neala Gill, Kathy Harrigan, Lena MacDonald, Natalie Nichols, Sarah Sabri

Background: Congestive heart failure (CHF) is recognized to be a major cause of morbidity and mortality, affecting an estimated 400,000-500,000 individuals in Canada. The identification of patients with CHF is an essential first step for the timely treatment and monitoring for quality improvement. Canadian Primary Care Sentinel Surveillance Network (CPCSSN) is a national project focused on collecting information on chronic diseases from electronic medical records (EMRs). As a contributor to the project, Maritime Family Practice Research Network (MaRNet-FP) has collected patient information since December 2009 from participating family practices across Nova Scotia (NS) using the Nightingale™ EMR system. As of December 2016, MaRNet-FP includes EMR data for 65 healthcare providers and 120,000 patients across NS. Our partner, Cardiovascular Health Nova Scotia is the provincial program responsible for monitoring evidence-based cardiovascular practices in the province. To ensure that care is evidence-based and timely for patients with CHF we need a systematic way to assist family physicians with early identification of CHF. The purpose of our study is to develop and validate case definitions to identify congestive heart failure using primary care EMR data. Methods & Results: To develop a case definition for CHF, an interdisciplinary team of domain experts including family physicians, nurse practitioners, pharmacists and a cardiologist has been formed. The team identified potential clinical triggers that may be indicative of a patient having congestive heart failure including medications, diagnostic codes, lab tests, and procedures. Further assessment was conducted to examine which CHF triggers are available in the EMR and whether they are stored in a way that allows data extraction. An iterative process was used to verify cases in the EMR data and the case definition was adjusted based on the findings (e.g. adding or dropping clinical triggers). The whole process was repeated until the team arrived at the desired result. The final case definition for CHF includes a selection of encounter diagnostic codes, problem list diagnostic codes and medication codes. Conclusion: A validated case definition that can be used to identify patients with CHF at the primary care level is a prerequisite to ensure delivery of high quality care.

Patient wait time recall accuracy for gastroenterology specialty consultation in Nova Scotia

Courtney Heisler, QEII Health Sciences Centre
Mathias H., Jones J.

Background: Nova Scotia (NS) has the highest incidence and prevalence rates of Inflammatory Bowel Disease (IBD) in Canada, which has the highest prevalence rates in the world. National guidelines suggest a 2-8 weeks wait time for active IBD symptoms. A 2015 audit shows NSHA Central Zone patients are waiting over 2 years. Long wait times can reduce overall health. Objectives: 1) To determine whether NS patients can accurately estimate the time between referral to gastroenterology (GI) and first appointment; 2) To examine selected factors which may influence the accuracy of wait time estimates. Methods: Questionnaires were distributed to patients following their GI appointment. Patients were asked to estimate their wait time and report on factors that could influence their estimate. Retrospective chart reviews validated the patients' responses. Results: A total of 60 patients were enrolled by February 2017. They estimated an average wait of 37 weeks. The average patient actually waited 43 weeks. There was a strong positive correlation between patient estimates and referral dates (rs=0.63, n=58, p<0.0001). Conclusions: The pilot data highlights the reality of excessive wait times in NS for IBD patients. Future research will look at access using healthcare systems mapping to better inform clinical care pathways.

Pharmacist Integration into Primary Health Care Teams in Nova Scotia

Natalie Kennie-Kaulbach, Dalhousie Family Medicine and College of Pharmacy, Dalhousie University
Natalie Kennie-Kaulbach, Anne Marie Whelan, Sarah Burgess, Andrea Murphy, Harriet Davies

Objective: To summarize the need for and evidence supporting the role of pharmacists in PHC teams. Methods: A review was undertaken to answer: 1) What are the medication needs for Nova Scotians? 2) What is the evidence of the clinical impact of PHC team pharmacists? ; 3) What are the roles of PHC team pharmacists?; 4) What are the lessons learned from integrating pharmacists into PHC teams? Each investigator was assigned a research question and completed a literature search using PUBMED, bibliographies and personal library files. Investigators individually extracted relevant information and prepared a summary for review and team discussion. Pharmacists working in existing PHC practices in Nova Scotia (NS) were surveyed relating to their roles and activities. Results: Three studies were identified that described preventable drug-related morbidity in adults and children in NS. Nine studies reported positive clinical impacts for pharmacists integrated into PHC teams. Pharmacists' responsibilities related to patient care, as well as team, practice and community roles were identified. Literature reporting on lessons learned identified barriers and facilitators for pharmacist integration, as well as guidelines and tools for integration. Seven pharmacists in existing PHC in NS completed the survey. Review results were compiled in a 4-page summary.

What is it like to receive medications in a long-term care facility? Exploring experiences by long-term care residents of everyday processes around medications

Olga Kits, University of Toronto, Faculty of Pharmacy & Research Methods Unit, NSHA

The medical literature tells us that patients are negatively impacted by inappropriate polypharmacy. Polypharmacy is considered a problem by many in the professions of pharmacy and medicine, as well as other parties such as governments and insurance companies. As our population ages, becomes more frail, experiences multiple co-morbidities, and people are prescribed complex prevention regimes, polypharmacy is understood by some as the 'new normal'. Studies have determined that polypharmacy leads to adverse events, higher health care usage, and increased emergency room visits. These studies point to a serious and difficult challenge: how to ensure that persons are receiving the right medications at the right time, and not too many. As part of my larger ethnographic work on polypharmacy in the Nova Scotia long term care setting, this poster will explore findings from the 14 residents and several family members I interviewed regarding experiences of medications, including the prescribing process, the roles of the various HCP's (LPN, MD, CCA, RNCL, administrative staff), the process of being on medications, family involvement, etc.

Building Provider, Team, and System Capacity: A Case Study of an Implementation Journey

Kothai Kumanan, Nova Scotia Health Authority, Saint Mary's University
Tara Sampalli, Michael Vallis, Ashley Ryer

Integrated approaches to chronic disease management continue to be a challenge for the health care system. As many chronic conditions are preventable, sustained health behaviour change is key to improve patient and population health outcomes. Innovative strategies that support patient self-management are required to significantly shift current trends in chronic conditions for Nova Scotians. Just as health care providers strive to build capacity in their patients, there is a need to build capacity within primary health care programs/services. A mixed methods study examined the development and implementation of a training program in behaviour change counselling through the foundational principles of the Behaviour Change Institute. Through the course of the intervention of the training program in two Primary Health Care program/service areas (Integrated Chronic Care Service and Diabetes Management Centres), researchers and participants (managers and health care providers) embarked on a parallel 'implementation journey'. Learnings from this process highlight sustainability and scalability of innovation requires a step-wise approach to provider, team, and system capacity building. Key findings are presented thematically: competency and capacity building, organizational change, and innovation. The thematic pathways of the implementation journey demonstrate strategies for the implementation and uptake of innovation across primary health care programs and services.

Implementing the 'Frailty Portal' in Community Practice: Feasibility, impacts and expansion needs

Beverley Lawson & Fred Burge, Dalhousie Family Medicine
Fred Burge, Beverley Lawson, Grace Warner, Tara Sampalli, Stephanie Wood, Paige Moorhouse, Rick Gibson, Angela Ghiz, Ashley Harnish, Lisa Bedford, Laurie Mallory, Deidre Taylor

Context: Primary health care (PHC) providers regularly encounter frail persons in their daily clinical work. However, there is a general lack of awareness and consistent approach to frailty. The web-based 'Frailty Portal' was developed to aid the identification, screening and care planning for frail patients in community practice. Objective: To assess the implementation feasibility, impact and expansion needs of the Frailty Portal. Design: A convergent mixed method design; concurrent data collection through surveys, semi-structured interviews and utilization metrics. The Consolidated Framework for Implementation Research (CFIR) was used as a framework for developing tools and guiding the analyses. Setting: Community-based family practice with Halifax, Eastern Shore and West Hants, Nova Scotia. Participants: PHC providers; stakeholders. Intervention: Education and application of the Frailty Portal over an 8 month period. Measures: Adherence to implementation plan, barriers/facilitators to use, impact on providers, identification of core components for successful scale-up. Results: 10 family physicians, 4 nurse practitioners took part in education/training activities. All felt the concept was important but only 7 used the portal resulting in 55 frailty assessments, 41 care plans completed/begun. 17 stakeholder interviews completed. Barriers to implementation included: time, practice organization, technical issues, the tool, lack of reimbursement. Facilitators were pre-identification of potentially frail patients, visit scheduling and a collaborative team environment. Provider confidence to assess frailty and discuss frailty and care options with patients/caregivers increased significantly. The PHC context, access, integration of the tool itself, cultural values, practice population make-up and process facilitators should be considered for future scaling. Conclusion: Implementation of the Frailty Portal within community primary care practice is complex and will take time. Results stress the need to support and enable PHC providers to execute their role in addressing the growing need for care of frail persons in the community.

Prospective observatory study of group visits in Primary Health Care in Nova Scotia – towards better access, continuity of care, and better outcomes

Michele LeBlanc, Primary Health Care – Western Zone, NSHA

Background: A patient with chronic illness requires a range of health services delivered by primary care, community care and acute care professionals and specialists leading to bottlenecks and delay in timely access to relevant care. A novel approach to improving timely access to care and care continuity, while reducing wait times and costs, is the group visit model. Current gap in the literature is a good understanding of the application of this model in diverse primary health care settings. Objectives and Methods: In this prospective observational study we will assess the implementation, feasibility and impact of group visits in improving access, timely care, provider and patient satisfaction and experience, and health outcomes for patients in diverse primary health care settings (n=8 settings, urban and rural). Potential Impact: Knowledge about factors and enablers potentially influencing the feasibility of implementing group visits in diverse primary health care (PHC) settings and assessment of whether group visits had an immediate impact on outcomes among patients, providers and PHC services (satisfaction, experience, access). Over the long-term, group visit model is expected to improve continuity, coordination of care while reducing wait times and improving patient experience of care.

Why is the number of Nova Scotians without a family physician rising?

Adrian Mackenzie, Maritime SPOR SUPPORT Unit

Access to primary health care is essential to the health of individuals as well as populations. In Nova Scotia, primary health care is mainly accessed through family physicians. There is evidence that the number of Nova Scotians without a regular family physician but who are actively seeking one – unattached patients – began growing rapidly in 2016. The reasons for this growth are unknown. The aim of this study is to generate hypotheses about the causes of the 2016 increase in unattached patients in Nova Scotia. This will be done by estimating changes in the most immediate determinants of the supply of family physicians and the need for primary health care in Nova Scotia between 2006 and 2016. These changes will be estimated using data from published literature, administrative databases housed by Health Data Nova Scotia, and surveys such as the Canadian Community Health Survey.

Comparative case study of strategies to improve primary health care human resources in three provinces

Ruth Martin-Misener, Dalhousie University School of Nursing
Martin-Misener, R., Wong, S.T., Johnston, S., Burge, F., Scott, C., Blackman, S., Parks, C., French, I.

Context: Over the past decade many policies supporting innovations in primary health care organization and service delivery have been introduced in Canada to improve previous reports of poor performance. Cross-provincial comparisons are needed to understand the effects and implementation of these innovations to identify their impact on performance differences and factors supporting spread and uptake of innovation. Objective: Compare the effectiveness and spread of strategies to improve primary health care human resources in three provinces. Design: Multiple comparative embedded case study design. Setting: Cases are three comparable geographic regions located in British Columbia, Ontario and Nova Scotia. Data Sources for each Case: 1) in-depth interviews with purposively selected 6-8 key informants (e.g. decision-maker leads for primary health care, primary health care physician leads, regulatory colleges or associations, patient groups, community health board chairs); 2) focus groups of 8-10 purposively selected patients and clinicians; 3) published and grey literature describing/evaluating innovations implemented in primary health care settings within the past 10 years. Analysis: Data are being managed using NVivo (v. 10) software and analyzed using content analysis to identify themes within and across cases. The coding structure was developed collaboratively and iteratively by researchers from each province using inductive and deductive approaches. Results: Three human resource strategies were identified: interdisciplinary team-based approach; expansion of the primary health care provider pool; and physician group practices and networks. Preliminary results suggest that there are differences in the magnitude and process which these strategies have been implemented across provinces. Determination of comparative effectiveness is complex and complicated by differences in the amount and quality of research within each province. Conclusion: Results inform our understanding of regional policies influencing differences in primary health care performance. An outstanding challenge is to determine how contextual factors should be incorporated into primary health care performance reporting.

Understanding the Experience and Perceptions of Rural NS Youth When Accessing Mental Health Services and Supports

Holly Mathias, School of Health and Human Performance, Dalhousie University (Student)

Introduction: Youth mental health is a Canadian public health issue. Approximately 15 percent of Canadians under the age of 18 live with a diagnosed mental illness, while many others live with undiagnosed mental health concerns. Access to mental health services and supports is important for managing mental health; however, only 1 in 6 youth has access to appropriate services and supports. Mental health concerns are problematic in rural Canada, especially in Nova Scotia (NS), which is predominantly rural. Little research addresses how youth experience access to mental health services and supports in rural Canada. This study will explore how youth in rural NS experience and perceive access to mental health services and supports. Methods: Using elements of phenomenology and community-based participatory research, focus groups and semi-structured interviews will collect the lived experiences of grade 10-12 students at a rural NS high school. The Levesque et al. (2013) patient-centered access framework will be used to analyze data. Anticipated Results: Data will be collected in Fall 2017 and results will be available in Spring 2018. Conclusions/Significance: Potential findings will contribute to literature on access to mental health services in rural Canada, and may also inform policy and service delivery within rural NS.

Improving outcomes of depression through person-centered measurement-based care and individualized feedback

Beth McDougall, Nova Scotia Health Authority

New low-cost options are needed to improve the lives of people with depression which is a leading cause of disease burden in Canada. Research suggests that asking patients to complete questionnaires and sending feedback to their clinicians, measurement-based care, improves depression outcomes. Research also shows that patients taking an active part in shaping their treatment, person-centered care, is also beneficial. The combination of measurement-based and person-centered care may have unique advantages, but it has never been tested before. This project will investigate the feasibility and short-term benefits of providing personalized feedback to patients and clinicians in primary and collaborative care settings in improving care and outcomes for people with depression in Nova Scotia. Forty adults diagnosed with depression will be randomly allocated to have regular person-centered measurement-based feedback sent to themselves and their clinicians, or not, in a 1:1 ratio. The feedback form has been developed with input from people with lived experience of depression, and follows new Canadian treatment guidelines. Information including depressive symptoms, quality of life, and personal goals for recovery will be collected using an online data collection platform. The information obtained from this study will be used to target the national funding body, the Canadian Institutes of Health Research (CIHR), to support the need for a national study on improving depression outcomes of Canadians through individualized feedback.

A primary health care strategy to include patient and family advisors in quality and decision-making process

Elizabeth Michael & Ashley Ryer, Primary Health Care, Nova Scotia Health Authority
Ashley Ryer, Graeme Kohler, Lisa McIsaac, Irene Higgins-Bowser, Judy Porter, Les Wood, Lynn Edwards, Shannon Ryan Carson, Rick Gibson

Background: Evidence shows that patient engagement is an important strategy in achieving a high performing healthcare system. While there is considerable evidence of implementation initiatives in direct care context, there is limited investigation of implementation initiatives in decision-making context as it relates to program planning, service delivery and developing policies. Objectives and methods: The broad objective of this initiative was to develop a system-level implementation strategy to include patient and family advisors (PFAs) at decision-making points in primary healthcare (PHC) based on well established evidence and literature. A co-design methodology was applied in identifying and developing a suitable implementation strategy to engage PFAs as members of quality teams in PHC. Diabetes management centres (DMCs) were selected as the pilot site to develop the strategy. Key steps in the process included review of evidence, review of the current state in PHC through engagement of key stakeholders and a co-design approach. Results: Key outcomes included development of a working definition of patient and family engagement and development of a Patient and Family Engagement Resource guide.

Play, Sleep and Be Healthy: The Association Between Physical Activity, Outdoor Play and Sleep Among Preschool-Aged Children

Laura Miller, Master’s in Health Promotion, Faculty of Health Professions, Dalhousie University

Sleep is important for healthy childhood development. Unfortunately, poor sleep is common among children in today’s society. It is therefore important to develop ways to promote healthy sleep among children. As physical activity is beneficial for sleep among adults, it could be that physical activity is beneficial for sleep among children. However, research examining this topic is limited and inconsistent. This is therefore a gap in the literature that needs to be addressed. Outdoor play allows for increased physical activity and could also be beneficial for sleep among children. More research is needed to determine the relationship between outdoor play and sleep among children. The purpose of this study is to examine the association between physical activity and sleep, and outdoor play and sleep among preschool children. Children will wear accelerometers to measure physical activity and sleep. Parents and teachers will fill out an outdoor play diary and parents will complete a sleep habits questionnaire. It is anticipated that children who are more physically active and who engage in more outdoor play will have better sleep than children who are less physically active and who engage in less outdoor play.

The Effect of Sleep Restriction on Emotions in Typically Developing Children and Children with ADHD

Laura Miller, Master's in Health Promotion, Faculty of Health Professions, Dalhousie University

Chronic sleep loss in children is a growing concern in contemporary society as sleep is important for healthy childhood development. Few experimental studies have explored the effect of sleep restriction on daytime functioning, particularly in the area of emotion regulation. Furthermore, these studies have included only typically developing (TD) children. There has been no research examining the impact of sleep restriction on emotion in children who have deficits in emotional regulation, such as children with Attention-Deficit/Hyperactivity Disorder (ADHD). The current study explored the impact of a minimum reduction of 20 minutes time in bed per night for 6 consecutive nights on emotion in TD children and children with ADHD. After successful restriction of sleep, results revealed changes in parental reports of emotional regulation but no differences were found on self- report measures by children. There was no significant difference of the impact of sleep restriction on children in the ADHD group versus the TD group. Further research is needed to evaluate the impact of sleep restriction on emotions. However, results of this study help speak to the need for accessible and widely available prevention and intervention programs focusing on helping children obtain sufficient sleep.

Maritime SPOR SUPPORT Unit: Building capacity for patient-oriented research and improved health outcomes for Maritime communities

Maritime SPOR SUPPORT Unit
Adrian Levy, Ted McDonald, Juergen Krause, the Maritime SPOR SUPPORT Unit

The Maritime SPOR SUPPORT Unit (MSSU) is dedicated to supporting patient-oriented research and health services decision-making in the Maritime provinces of New Brunswick, Nova Scotia and Prince Edward Island. The MSSU and other SUPPORT Units across Canada are administered by the Strategy for Patient-Oriented Research (SPOR), a Canadian Institutes of Health Research (CIHR) initiative focused on more effectively integrating health research into care. The MSSU engages with patients from across the Maritimes and collaborates with the research community on governance, priority setting, and the planning and conducting of research. Through this meaningful and active collaboration, the MSSU contributes to an enhanced health system, engaged health research, and improved health outcomes. The MSSU offers support to researchers, at any stage of the research process, in the areas of patient engagement, knowledge translation and evidence synthesis, as well as support obtaining and analyzing administrative health data. The MSSU also provides opportunities for career development, training, capacity building, and networking and mentorship with Maritime researchers and health policy makers.

"We are the little person": A qualitative study of refugee experiences with primary care

Elizabeth Munn, Dalhousie University, Faculty of Medicine
Matthew To, Mandi Irwin, Emily Gard-Marshall

Objective: Characterize the experiences of refugees with primary care services and determine barriers and facilitators to access. Methods: Four focus groups were conducted following a semi-structured interview guide. Groups were organized by gender and language. Interview data were coded independently by two research team members and analyzed using a thematic analysis approach. Participants: Government-assisted refugees living in Halifax were recruited through purposive sampling. Individuals were from the Arabic- and Nepali-speaking communities, which represent the major language groups of refugees resettled to Nova Scotia. Participants accessed care at walk-in clinics, family practices, emergency departments, and/or at a specialized refugee health clinic. Findings: Refugees described significant challenges accessing primary care, vision/dental care, and specialist services. Barriers were personal (e.g. language) and structural (e.g. bureaucracy). Individuals expressed different concerns based on their location of primary care. Perspectives were influenced by pre-migration experiences. Conclusion: The study identifies barriers and facilitators that refugees face when accessing primary care across a range of locations. Access to interpretation and consideration of income are examples of measures that could improve the quality and accessibility of primary care services for this population. The findings have public health and service provision implications.

Using participatory action research techniques to identify and prioritize strategies for improving a community pharmacy-based mental health care program

Andrea Murphy, Dalhousie University
David Gardner, Lisa Jacobs

Participatory action research (PAR) methods emphasize participation and action of individuals and communities coming together to collaborate and reflect. We used PAR techniques in a one-day workshop with community pharmacists and stakeholders who were primarily involved in the delivery, implementation, and/or evaluation of the Bloom Program. Eleven pharmacists and eight observers attended with all eleven pharmacists and six observers available to complete PAR activities. Workshop participants completed a free list and pile sort activity for fact-finding and listening to identify their main challenges with program delivery and ongoing operations. This was followed by establishing themes and prioritizing main challenges through group discussion. Participants were then assigned small groups in which they shared and worked on targeted solutions for challenges based on their own experiences and other knowledge and evidence. A contribution and feasibility exercise was used to facilitate small group discussion around establishing solutions most likely to make significant contributions to ongoing program delivery and those that were most likely to be feasible considering various factors (e.g., time, workflow, staffing). Patient enrollment, workflow inefficiencies, and skill development of pharmacists were some of the primary areas for improvement. Various solutions were identified and will be presented.

The Effect of Previous Training on Perceptions and Practices of Physical Activity Counselling and Exercise Prescription Among Health Care Providers Across Nova Scotia

Myles O'Brien, Acadia University, Dalhousie University, Nova Scotia Health Authority

Chris A. Shields, Olga Theou, Sandra Crowell, Patrick McGrath, Jonathon R. Fowles
Previous research demonstrates that Canadian health care providers (HCPs) infrequently provide physical activity counselling (PAC) and exercise prescriptions (ExRx). This cross-sectional study compares PAC and ExRx perceptions and practices between Nova Scotian HCPs who report previous PAC and ExRx training versus those reporting no-training. 351 Participants (n=172 Physicians, n=86 Nurses, n=95 Dietitian), completed an online survey regarding current practices, barriers to, and confidence towards PAC and ExRx. Most HCPs (70%) report no previous training (n=131 Physicians, n=63 Nurses, n=49 Dietitians). HCPs with training recommend PA to their patients (out of 100%) more frequently (82±26 vs. 57±35; p<0.001) and provide more ExRxs (54±41 vs. 13±25; p<0.001) compared to their untrained counterparts. Trained HCPs were more confident (out of 100%) in their ability to provide PA information (89±20 vs. 65±31; p<0.001) and in their patients' ability to follow through on exercise advice (56±26 vs. 34±26;p<0.001). The most impactful barriers (out of 4.00) that prevent PAC and ExRx among trained- and untrained-HCPs were lack of patient interest (trained-HCPs=2.39±0.67 vs. untrained-HCPs=2.45±0.76; p>0.05) and lack of time (trained-HCPs=2.00±0.72 vs. untrained-HCPs=2.20±0.86; p=0.007). In conclusion, many Nova Scotian HCPs have low confidence towards PAC and ExRx and experience many barriers that prevent PAC and ExRx, which may be mitigated via educational training.

Exploring Nova Scotia Women's Gestational Weight Gain Goals Using the Theory of Planned Behaviour

Helena Piccinini-Vallis, Dalhousie University Department of Family Medicine
Helena Piccinini-Vallis MD MSc CCFP FCFP Genna Bourget, MB BCH BAO

Background: Gestational weight gain (GWG) in excess of the 2009 Institute of Medicine guidelines, based on pre-pregnancy BMI, is associated with adverse outcomes for mothers and their offspring. Currently approximately 60% percent of pregnant women experience excess GWG. Objectives: To explore: The congruence of women's GWG goals with the 2009 IOM guidelines; The relationship between women's GWG goals and their actual GWG; The congruence of women's actual GWG with the 2009 IOM guidelines; Women's intention to comply with the 2009 IOM guidelines through the Theory of Planned Behaviour (TBP) lens. Methods: Prospective cohort study of women with a singleton pregnancy receiving prenatal care at the Dalhousie University Family Medicine clinics. Participants completed a brief questionnaire on enrolment. Their actual GWG was subsequently extracted from their electronic prenatal record after delivery. Results: 80 women participated in the study (90% response rate). Fifteen percent of women had GWG goals below, 41.3% within, and 41.3% above the recommendations. GWG goals correlated significantly with actual GWG. 14.7 % gained weight below, 20.6% within, and 64.7% above the 2009 IOM guidelines. Women with guideline-congruent GWG goals had significantly higher total TPB scores than other women.

Gestational weight gain and childhood body mass index values: a cohort study using primary care data in Nova Scotia

Helena Piccinini-Vallis, Dalhousie University Department of Family Medicine
Helena Piccinini MD MSc CCFP FCFP; Emily Burke BSc

Background: Childhood obesity is a risk factor for several adverse health outcomes that potentially persist into adulthood. One of the risk factors for childhood obesity itself is the amount of weight mothers gain during pregnancy. Excess gestational weight gain (GWG) has been shown to be associated with childhood obesity, but the effect of insufficient GWG is less clear. Objective: To determine the relationship between gestational weight gain above, within, and below the 2009 Institute of Medicine (IOM) guidelines and offspring BMI at 12 time points from birth to 5 years. Methods: Retrospective cohort pilot study using primary care electronic medical record data at the Dalhousie Family Medicine clinics. Mother and offspring data were matched using phone number, and 111 eligible dyads were identified. Results: There were no significant differences in BMI values at any time point based on GWG concordance with the 2009 IOM guidelines. However there was a trend at every time point for children of mothers with insufficient GWG to have higher BMI. Conclusion: Although not significant, this study shows a trend for insufficient GWG to potentially have an effect on children’s BMI. Future work should include a greater sample size.

A Fracture Liaison Service specifically designed to address local government concerns can be effective

Carla Purcell, Dartmouth General Hospital
Diane Theriault

There is no Fracture Liaison Service (FLS) in Nova Scotia, Canada. The Dartmouth General Hospital (DGH) FLS was designed as a prototype that might be endorsed by government for on-going funding. Accordingly, the prototype is aligned with the 2010 Osteoporosis Canada (OC) Guidelines, uses a nurse working through protocols with minimal on-going input from physicians, lessens duplication of services and recommends limited referrals to osteoporosis specialists (only as per the indications listed in the 2010 OC Guidelines). The FLS focuses on high risk patients and ensuring that they receive effective osteoporosis medication to reduce their risk of repeat fracture. The FLS sees fragility fractures of hip, spine, wrist, shoulder and pelvis at DGH. The patient's fracture risk is determined as the WHO FRAX™ tool and 2010 OC Guidelines: BMD and spine X-rays performed and FRAX™ tool used. A letter is sent to the family physicians of high risk patients recommending osteoporosis treatment. To see if effective medication has been started, these patients are contacted by phone 3 months later. We show results for the non-spine fractures only. Fracture risk assessment is described for patients who had initial fractures from Feb 19, 2013 to Jan 13, 2014; treatment rates are described for patients who had initial fracture from Feb 19 to Dec 31, 2013. A total of 204 non-spine fractures were seen up to Jan 13, 2014. Exclusions include under the care of an osteoporosis specialist (5), bilateral total hip replacement (1), subtrochanteric femoral fracture (2), palliative care (2). 19 patients declined enrollment and 3 have yet to undergo the prescribed investigations. Of the 173 non-spine fracture patients who completed the fracture risk assessment, 123 (71.1%) were deemed at high risk and 50 (28.9%) were deemed at moderate risk as per CAROC. For the period of Feb 19 to Dec 31, 2013, there were 101 patients who were at high risk ready for phone follow-up, of which 34 could not be reached by phone by Apr 7, 2014, 1 was deceased, 1 declined further assessment and 2 were discharged as per protocol (having been referred to an osteoporosis specialist). Of the 63 remaining high risk patients, 53 (84.1%) had been initiated on treatment, 9 (14.3%) were not initiated on treatment and 1 was unsure. Conclusion: An FLS can be designed to respond to local government concerns and still be effective at closing the post-fracture osteoporosis care gap.

Small Area Variations in Unplanned Repeat Hospitalization in Nova Scotia

Michael Reid, Department of Community Health and Epidemiology Dalhousie University
Dr. George Kephart, Dr. Adrian Levy, Dr. Tara Sampalli, Dr. Rick Gibson, Dr. Jonathan Ross

Poor chronic disease management (CDM), especially for multi-morbid, complex patients, is a dominant driver of poor healthcare outcomes and high utilization in Nova Scotia. From the patients' perspective, a consequence of poor CDM may be sequential, unplanned repeat hospitalizations. Unplanned repeat hospitalizations are primarily studied as indicators of hospital performance, but it is likely that community factors such as access to primary care play an important role, especially beyond the transitional care period. There has been little research examining community factors as a determinant of unplanned repeat hospitalizations. This project is a first step in developing a better understanding of how community-based systems of care affect rates of unplanned repeat hospitalization within the Nova Scotian context. Using statistical methods for small area estimation, we will estimate the age, sex, hospital, and comorbidity adjusted rates of repeat hospitalization amongst adults aged 30 years and older in Nova Scotia who had at least one hospital admission between 2010-2015. Our results will be presented in a series of maps identifying areas of above or below average rates of unplanned repeat hospitalization. This study will offer insights into where patients are frequently returning to hospital unexpectedly, and where we should focus future research efforts.

Community variation in hospital length of stay: an indicator of community transitional care

Alysia Robinson, Dalhousie, Community Health and Epidemiology
Dr. George Kephart; Dr. Grace Warner

Background: When supports for a patient in their home and community are lacking, patients' discharge from hospital may be delayed. Delays in discharge may in part be attributed to poor integration of formal and informal transitional care resources in communities. Formal resources include transitional care facilities, home care supports, and primary healthcare. Informal supports include community closeness, and family and friends as supports. Successful transitional care in communities is a function of such resources functioning together. Thus, systematic differences between destination communities in length of stay (LOS) of patients may be an indicator for the accessibility, quality and integration of transitional services and supports. Study Aim: I will determine whether there are systematic differences between communities across Nova Scotia in LOS for patients who have undergone major surgeries, and identify community attributes associated with those differences. Approach: Using hospital discharge abstract data linked with community census data, statistical models will estimate the effects of community integration on patient LOS, a measure which will be adjusted for patient complexity. The contribution of community measures of service availability and deprivation (material and social) to explaining community variation will be assessed. Community differences in complexity-adjusted LOS will be estimated and mapped.

Improving functional independence in individuals with early to moderate stage of Alzheimer's disease: a technology innovation for patients and primary care providers

Trishla Shah, Computer Science, Dalhousie University

Background: Alzheimer's disease and other dementias significantly impact the day to day functional ability of affected individuals. Patients with these conditions experience a variety of symptoms including confusion, irritability and aggression, long term memory loss, mood swings, shivering and trembling. Evidence has shown that patients in early to moderate stages of these conditions have fair chance of maintaining a level of independent function with the right types of supports. Objective: A novel technological solution in the form of a mobile app has been tested in a pilot study to offer a patient-provider connection and response protocol to improve functional self-sustenance in individuals with early to moderate onset of Alzheimer's. Methods: The methodology included co-design of a mobile app and testing the usability and usefulness in a pilot study. The main features of the app included: GPS tracking for memory loss problem, pop-up message to provider/caregiver on impact triggering of phone from symptom of shivering and trembling, mental exercise training regimen to address confusion problem, diet and daily routine manager to support day to day functionality. Potential impact: The outcome of the study offers user friendly and accessible technological solution to a debilitating, costly and highly prevalent health problem.

The gaps and significance of family caregiver support in primary health care

Dominique Shephard, Occupational Therapy, Dalhousie University

In Primary Health Care patients often have social supports that provide some level of care; however this care can vary in scope, duration, and intensity. The term family caregiver refers to an unpaid social support that aids an individual who has an acute or chronic condition to manage their activities of daily living. The benefits of family caregiving include reducing the costs of health services and institutionalization, as well as maintaining quality of life for the care receiver. However, this support may affect caregivers negatively and can impact their physical and mental health, their ability to participate in the workforce, finances, and reduces time for leisure and self-care activities as they spend a substantial amount of time interacting with care recipients. Evidence shows family caregivers often feel unprepared to provide proper care due to inadequate knowledge or skill, which often results in distress over the health decisions they make with and for the care receiver. Family caregivers are not well versed in how or when to connect with community resources, adding to the strain on Primary Health Care. Research indicates that due to heightened stress family caregivers are at risk for developing poor physical and mental health outcomes.

Community Health Teams: Free Health and Wellness Programs

Lisa Sutherland, Community Health Teams, Primary Health Care, NSHA

MacDonald, Christina; Nova Scotia Health Authority (NSHA), Halifax, NS; MacIsaac, Lindsay; NSHA, NS: Sutherland, Lisa; NSHA, NS; Carr, Caroline; NSHA, Halifax, NS; Sutherland, Lindsay; NSHA, Halifax, NS

The Community Health Teams (CHT) support citizens to build knowledge, skills and confidence to prevent and manage chronic disease through modifying health behaviours. To improve accessibility, wellness programs (related to managing risk factors, physical activity, food, nutrition and weight management, emotional wellness, and parenting are grounded in behavior change) and navigation services (assisting citizens to navigate and access health care and community resources) are free, offered at various times of day in multiple community locations, and clients can self-refer. CHTs build community connections through engagement, relationship building with partners and community groups, and strengthening links across the system. Data shows significant improvements in clinical outcomes in blood pressure, physical activity and metabolic syndrome. Over 90% of program participants agreed or strongly agreed that sessions were valuable to them and they have a better understanding and a plan to improve their health as a result. The CHTs have a positive impact on the health of clients, facilitate the empowerment of clients to advocate for their health and social needs, and have built a meaningful partnership model with other service providers and community organizations.

Personalized Indications for Cognitive Behavioural Therapy and Antidepressants in the Treatment of Major Depressive Disorder and Persistent Depressive Disorder

Rudolf Uher, Dalhousie

Depression is a major cause of suffering, loss of income, health cost, disability and premature death. Depression can be treated with psychological therapies or with antidepressant drugs. Some individuals with depression preferentially respond to psychological therapy and others to antidepressant drugs, but it is difficult to predict who will benefit from which treatment. We have discovered several clinical characteristics and blood-tests that predict poor outcome of treatment with antidepressants. It is likely that these same predictors may indicate a higher chance of responding to psychological therapy. We propose to test that a set of four predictors (depression symptom profile, history of childhood abuse, a blood marker of inflammation, and a genetic test) can meaningfully predict who will benefit from antidepressants and who will benefit from psychotherapy. To do this, we will measure these characteristics in 360 individuals with depression and then allocate them by chance to receive either best-evidence psychological treatment or best-evidence antidepressant drug treatment for 16 weeks. We will test if a score derived from the four predictors usefully determines who benefits more from psychological than from pharmacological treatment.

Evaluation of open access stress testing referrals by Capital Health family physicians in Nova Scotia

Graham Wilson, Dalhousie Medical School, Capital Health District Cardiology Department
Graham Wilson and Chris Koilpillai

Introduction: In April 2012, the Division of Cardiology began accepting referrals directly from Capital Health family physicians for stress testing of patients with chest pain. To date, the efficacy and practicality of opening stress testing to family physicians within Capital Health has not been assessed. The purpose of this project was to determine the impact of accepting referrals from Capital Health family physicians for stress testing. Methods: A retrospective analysis of all stress tests referred by Family Physicians within the Capital Health District were collected from the Division of Cardiology at the Halifax Infirmary in Nova Scotia from April 2012 to June 2016. The criteria for stress testing referral was limited to investigating only patients with relatively low risk of having coronary disease. Results: In this study population, 9% of patients with a negative stress test were referred to a cardiologist, with 24% of patients being referred for further investigation. 2/371 patients received an intervention post-stress test. 55% of patients with an equivocal stress test were referred to a cardiologist, with 32.4% of patients being referred for further investigations. 2/130 patients received an intervention post-stress test. Conclusion: With the ever-growing population size and resulting restrictions to resource allocation, it is critical that, as medical professionals, we play a role in the evaluation and application of diagnostic procedures. We need to analyze the available data to assess the benefits of each procedure to develop effective guidelines that will improve patient care/outcome while minimizing overall costs by focusing resources on the most effective strategies

Did the Canadian Pediatric Society Policy Statement in 2007 impact trampoline-related injuries in Halifax, Nova Scotia?

Graham Wilson, Dalhousie Medicine

Introduction: The Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) found a significant rise in trampoline-related injuries from 1999-2005, many of which required hospitalization. In 2007 and again in 2013, the Canadian Pediatric Society (CPS) recommended against the recreational use of trampolines at home. This study evaluated the impact of this policy statement on trampoline-related injuries in Halifax, NS. Methods: Trampoline injury data was obtained from the CHIRPP database at the IWK. The data was stratified according to the timing of the policy statement (before: 2001-2006, after: 2008-2013 and after reaffirmation 2013-2015). Results: Since the 2007 CPS policy statement, the percentage of IWK trampoline related ED visits increased from 0.9% to 1.6% post-policy ($p<0.000$). The injury data did not differ significantly in gender, the mechanism of injury, the nature of injury, or body part involved (p-value >0.05). There was a significant difference in the number of injuries between age groups post-policy, with more occurring in children less than 4 and between the age of 10-14 ($p<0.009$). Moreover, where the trampoline injury was located was also significantly different post-policy with more injuries occurring in sports/recreational facilities and in schools ($p<0.000$). The majority of injuries (76-80%) occurred in children 5-14 years of age. Recreational use at home in the yard was the most common location of the accident (78-88%), with most injuries occurring on the trampoline mat itself (83-85%) due to incorrect landing (32-35%), falls (21-27%), or being struck by a person or object (24-25%). Soft tissue injuries (15-17%), sprains (19-22%) or fractures (40-46%) to the elbow (11-12%), forearm (5-9%) or ankle (19-21%) continued to be the most common nature and sites of injuries. Conclusion: Trampolining is a high-risk activity with injuries occurring predominantly in children and youth. Despite the recommendations by the CPS, trampoline-related injuries remain an important source of pediatric injuries in Halifax, NS.

Financial Models, Professional Hierarchy and Collaboration in Interdisciplinary Primary Care

Dominika Wranik, Dalhousie University, Faculty of Management - School of Public Administration, Faculty of Medicine - Department of Community Health and Epidemiology
Susan Haydt

"Nova Scotia is shifting from a traditional patient-doctor setting to Collaborative Interdisciplinary Care Teams" states the NS Department of Health and Wellness. The trend of organizing primary care into interdisciplinary teams is observed across Canada. A core policy problem is how to finance these teams; and the approach has varied across the country. We develop a typology to capture the diversities of approaches to the funding of interdisciplinary primary care teams and remuneration of providers within teams. A descriptive typology provides a framework for the discussion of incentives for collaboration and opportunities for the disabling of policy legacies, and also for the planning of subsequent evaluative studies. We rely on qualitative methods, including document reviews, qualitative interviews and a research roundtable with policy makers to develop the typology and to describe the perceived effects of financial models on matters of professional hierarchy and inter-professional collaboration. This presentation is well-suited for a poster, because the typology includes visual components.

Direct breastfeeding as standard of care for procedural pain management in full term infants: A systematic evidence update

Britney Benoit, Dalhousie University School of Nursing, IWK Health Centre

Objective: To review the current state of evidence for the effectiveness of breastfeeding and expressed breast milk in reducing procedural pain in full term and preterm infants.
Methods: A systematic search of key electronic databases was completed to December 22, 2016. Inclusion criteria required that studies be 1) an empirical investigation examining the use of breastfeeding or expressed breast milk for pain relief, 2) include a sample of full term or preterm born infants, and 3) be published in English in a peer-reviewed journal. Results: Of the 1032 abstracts screened, 21 were eligible. Fifteen studies reported on the use of breastfeeding or expressed breast milk in full term infants (n = 1908) and six on preterm infants (n = 428). Direct breastfeeding was more effective than maternal holding or skin-to-skin contact, topical anesthetics, and music therapy; and was as or more effective than sweet tasting solutions in full term infants. Expressed breast milk was not found to reduce pain in full term or preterm infants. Conclusion: There is sufficient evidence to recommend direct breastfeeding as the first line analgesic intervention for procedural pain management in full term infants. Expressed breast milk alone should not be considered an adequate intervention.

Citizen, consumer, and patient roles in using publicly reported primary healthcare performance information: Lessons from citizen-patient dialogues in three Canadian provinces

Fred Burge, Department of Family Medicine, Dalhousie University

Context: Measurement and public reporting of primary healthcare performance is proliferating. However, there are increasing calls to rationalize this movement and understand how to optimize public reporting for different end-users. Objective: To explore how the public uses and values primary healthcare performance data, to inform effective public reporting systems. Design: Deliberative public engagement methods. Setting: 3 health regions in the provinces of British Columbia, Ontario, and Nova Scotia, Canada. Participants: English or French speaking adult patients (n=56) recruited from primary care waiting rooms. Intervention: Day-long citizen deliberation sessions in each region (n=6) to discuss primary healthcare performance reporting and to explore how and what information people would find useful. Results: Common uses for performance information emerged across all three regions and groups broadly organized around citizen, consumer, and patient roles in the health system. The most common use was to advocate for better primary healthcare for their community. Participants identified barriers to using performance information, particularly in the consumer role, given the lack of choice of primary care providers, the value they placed in existing relationships, and the general reluctance to change providers. Participants expressed a diversity of perspectives on how they might use publicly reported performance information in making health care decisions in the context of their existing provider relationships which suggests that these are complex processes. Participants repeatedly stated they relied on their own experience to assess good quality and would discount published reports of poor performance for their provider if their experience was good. Conclusion: The different roles, information relevant for those roles, and barriers to the public using performance information as citizens, patients, and consumers can help guide the development of more effective public reporting on primary care performance.

Improving the performance reporting of primary care patient experience

Fred Burge, Department of Family Medicine, Dalhousie University

Context: Performance reporting in primary care (PC) in Canada is recent. There is a need for improvement in the science and meaningfulness of performance measurement. Objective: Synthesize multiple measures of patient experience into key dimensions that provide a high-level snapshot of PC performance. Design: Cross-sectional practice-based waiting-room survey of patient experience. Setting: Primary care practices in three peer regions: Central Zone, Nova Scotia (n=26); Eastern Ontario Health Unit (n=15); and Fraser East, British Columbia (n=12). Patients: 20 patients in each participating practice; Eligibility: 1) > 18years; 2) with current provider for >1year; and 3) able to complete the survey in English/French Intervention/Instrument: Self-administered questionnaire, 116 questions - validated subscales, indicators, and descriptive questions. Main Outcome Measures: Composite indices composed of positive and negative indicators measuring similar constructs. Items and scales were mapped to core constructs of PC; fit was adjusted or confirmed using confirmatory factor analyses. Individual patient dimension scores are averaged to the practice level, where actionability for improving performance is expected to happen. Results: Data were used from 1,207 patient experience surveys clustered into 53 practices. Indicators and subscales are grouped into seven dimensions: accessibility orientation, relationship-based care, promoting health, self-management support, coordination orientation, safe care and equity orientation. Patient characteristics across jurisdictions and practices were similar but experience varied statistically significantly by practice. Ontario practices had the highest performance across dimensions, followed by those in Nova Scotia and British Columbia. Conclusion: Synthesizing multiple measures of patient reported experience into fewer dimensions of PC can convey high-level information about performance that can become actionable in greater detail. Policy interventions (team care) aimed at practices, rather than individual clinicians, could lead to more impact on strengthening performance of the PC system. Though limited patient sampling detects significant between-practice difference, more patients per practice would increase reliability for individual practice feedback.

HOPES Student Run Health Centre: Opportunities for interprofessional education and increasing social responsibility

Braydon Connell,Dalhousie University, Medical School

Introduction: HOPES (Halifax Outreach Prevention Education Support) is a student led interprofessional (IP) community Health Centre and outreach for marginalized populations of HRM. HOPES aims to provide health professional students a unique IP education (IPE) experience, helping to understand student's learning during team-based care and potentially increasing empathy for marginalized individuals. Methods: Retrospective pre-test/post-test design will be used to administer the Interprofessional Collaborative Competency Attainment Survey (ICCAS) and Jefferson Empathy Scale – Health Professional Students (JES-HPS) to student volunteers of HOPES. HOPES has students involved from 9 health professional programs from 3 institutions, all can participate in the surveys. Semi-structured focus groups will be conducted to better understand student IP experience. Anticipated Results: It is anticipated that HOPES volunteers will demonstrate improved scores regarding behaviors associated with person-centered, team-based, collaborative care, and higher rates of empathy. Significance: Participation in HOPES will promote collaboration, challenge misconceptions and expose students to care experiences, advocacy, and social responsibility. Learning will involve IP patient/clients encounters, reinforced by formal/informal communication. HOPES has the potential to drive interest in serving marginalized populations with empathy and stimulate frontline care careers. We propose HOPES as a model for IPE with implications for optimal learning environments to promote team-based care.

Inclusion of children with medical challenges in Nova Scotia schools

Carla DiGiorgio, Cape Breton University School of Professional Studies

This presentation will survey case studies of experiences of stakeholders in education of children with health challenges in schools across the province. The author has interviewed students, teachers, administrators, parents and support staff from healthcare to gather data on students' inclusion and well-being in their learning environment. This study has also investigated the relationships between stakeholder groups, which have impacted student success in schools. Finally, the presentation will analyze current policy and make recommendations for future practice and research.

Shifting paradigm through integrative functional medicine in primary care

Alexis Goth0, Primary Health Care, NSHA

Individuals with multimorbidity have complex care needs which significantly impact their health and quality of life. The impact of managing complex, chronic disease is evident at multiple levels of healthcare – the individual, the provider, and the system. In light of these challenges, we have developed of a patient-centered, team-based consultative health model within the Integrated Chronic Care Service (ICCS) in Primary Health Care for the care of individuals with multimorbidity. Further to this approach, the application of an Integrative and Functional Medicine model is being explored in a pilot study at the ICCS in collaboration with a primary care physician as a framework to engage, evaluate and treat individuals with complex, chronic illness. We will also examine the opportunities to adopt and integrate the functional medicine model and approach within primary care. Functional Medicine represents a paradigm shift in our understanding, exploration, and treatment of chronic disease. It aims to determine the root causes of illness, by using a systems-oriented approach, which engages both patient and practitioner in a therapeutic partnership. We will describe our novel, multifaceted integrative team-based treatment approach, tailored to the individual, and our formulaic application of integrative and functional medicine to primary care.

Stepping up on Quality in Senior Care: learning from data and quality monitoring, and audit-feedback process

Ashley Harnish, Primary Health Care, Nova Scotia Health Authority

Improving care for seniors requires an integrated, collaborative, evidence and experience informed strategy. Achieving optimal outcomes for care have to be driven by effective team communication, focus on ongoing quality improvement, and appropriate engagement of key stakeholders including patients, caregivers and care team. The Nova Scotia Health Authority's innovative Care by Design program provides residents of long term care facilities access to high quality and consistent primary health care. Care by Design strives to provide high quality of life to the most frail seniors and an appropriate health care approach to meet their health care needs. Care by Design boasts a collaborative model which includes 'physician per floor', long term care facility medical directors, nurses, pharmacists, advanced care paramedics and allied health care professionals. In order to optimally support the collaborative team approach and the needs of the patient population, further enhancement to the Care by Design model have been made. These include improvement to the data monitoring environment, introduction of an audit-feedback process and rapid cycle quality improvement activities. The enhanced model along with preliminary results from this work will be shared.

Using Research on Community Variations in Health Outcomes to Inform Realist, Systems-Based Approaches to Primary Care Transformation

George Kephart, Community Health and Epidemiology, Dalhousie University

Community-based primary care is a complex system, involving interactions between formal and informal resources, nested within larger systems and environments. Efforts to isolate and implement "active ingredients" that will enhance the effectiveness of primary care models is thus challenging. To address this problem, realist evidence reviews and complex systems approaches, which can consider and respond to local needs, are increasingly employed. Our presentation will show how we assess the performance of communities as systems to focus planning efforts where they are most needed. Statistical methods for small area estimation, applied to existing data, can estimate community effects on outcomes. Supplemented by qualitative insights from patients and providers, this information can customize reforms and innovations to community needs. Community differences in rates of high-cost health care use will provide an example. Many high-cost users of health care have complex needs resulting from multi-morbidity and social disadvantage. High-cost users in Nova Scotia are geographically clustered, but for different reasons in each area. This data is now being used to inform primary care planning in Nova Scotia. If high-cost, complex patients can be identified and engaged at the point of care, additional system insights may inform planning.

Designing Self-Management Supports Using a Client-Centred Lens and System Thinking

George Kephart, Department of Community Health and Epidemiology, Dalhousie University
Tara Sampalli, Primary Health Care and Chronic Disease Management Portfolio, Nova Scotia Health Authority

Self-management science is a rapidly advancing field. Over 2000 articles with the term "self-management" in the title have appeared in the last 5 years. Evidence of effectiveness, economic evaluations, intervention protocols and more are published daily. In response, Primary Health Care (PHC) and NSHA have prioritized the need for a meaningful self-management reference framework to guide system transformation for patients with ongoing, sometimes deteriorating conditions. This paper will present a potential client-centred framework to inform the organization and planning of self-management support systems. It will highlight the need for integrated primary care teams with complementary and overlapping scopes of practice and stress the importance of situating existing services within an overall framework. Finally, a patient reported outcome measure with capacity to measure areas important to clients, to tailor care and measure success will be proposed. Chronic conditions involve a lifetime of inevitable changes. The relative importance of medical, role and emotional management change as the time from diagnosis grows, life circumstances unfold and aging occurs. For the growing number of people with multiple conditions, and social or material deprivation, self-management is even more complex. This client-centred, lifespan lens argues for an integrated, system-wide approach to self-management being implemented at PHC.

Healthcare Providers’ Knowledge, Attitudes, Beliefs, and Behaviours Toward Deprescribing: A Nova Scotia Pilot Project

Natalie Kennie-Kaulbach, College of Pharmacy, Dalhousie University Dalhousie Family Medicine

Polypharmacy is prevalent in older populations with data suggesting that one in five prescriptions for older adults living in the community may be inappropriate. Deprescribing is the process of tapering, stopping, discontinuing or withdrawing drugs, with the goal of managing polypharmacy and inappropriate medication use while improving outcomes. We are forming a collaborative interprofessional deprescribing research team in Nova Scotia to initiate pilot work to obtain baseline data and help inform future deprescribing initiatives. This presentation will describe the methods planned for the pilot project. Our team will first evaluate the knowledge, attitudes, beliefs and behaviours (KABB) with respect to deprescribing of physicians, pharmacists, and nurse practitioners in Nova Scotia through one-on-one interviews and focus groups. The interview and focus group guides will have questions grouped by the domains of the Theoretical Domains Framework (TDF), which will be used as the coding framework for analysis. The results will be used to inform future studies, including a KABB survey of healthcare professionals throughout the province. The team plans to study the implementation and impact of deprescribing in Nova Scotia, as well as to collaborate with other jurisdictions on deprescribing research. The team is seeking others who may be interested in collaborating.

Examination of the effects of interprofessional collaboration on health care provider and team productivity in primary health care: An important consideration in health human resources planning

Kelly Lackie, Registered Nurses Professional Development Centre, Nova Scotia Health Authority

Service-based health human resources planning (SB-HHRP) is about having the right number and skill mix of health care providers (HCPs) in the right place at the right time to meet care requirements. Because interprofessional collaboration (IPC) has been promoted as a means to create HHR efficiencies and enhance the quality of care, when undertaking SB-HHRP it is reasonable to establish if IPC occurs, the extent to which it occurs, and how team delivered care affects productivity. The purpose of this study was to discover HCPs’ understandings about IPC and their perceived level of efficiency when working with their primary health care (PHC) team; to determine the extent to which HCPs demonstrate IPC competencies; and, to explore whether self-assessment of IPC competencies changed HCPs’ sense of being productive. This research provides a full description of IPC and its affect on productivity, which assists in understanding whether HCPs do what they say they could/would do in relation to IPC and productivity.

Translating Research into Practice: A Competency Framework for Behaviour Change Counselling

Michael Vallis, Behaviour Change Institute, Primary Health Care, NSHA; Dalhousie University

Chronic conditions significantly impact patients and the health care system negatively. Yet chronic conditions have the potential to be preventable as they are commonly mediated by health-related behaviours. Even as efforts have been made for patients to shift to healthier behaviours, a gap exists between behaviour change counselling to promote patient self-management and the competency with which counselling is conducted. Current medicalized approaches to chronic disease management challenge providers to give the ongoing support needed in a chronic condition context. A mixed methods study in Primary Health Care, Central Zone (Integrated Chronic Care Service and Diabetes Management Centres) examines the establishment of a training program for providers. The purpose of the intervention is to: 1) create awareness and 2) socialization of behaviour change counselling; 3) training in its principles and 4) ongoing support for skill development. A systematic approach that is integrated, sustainable, measurable and scalable is presented. Mid-study findings show that embedded peer leaders are necessary to initiate and sustain innovative ways to practice and to strengthen collaboration within an inter-professional context. A competency framework for behaviour change counselling is proposed as an effective strategy for individual competence, team effectiveness, and system uptake.

The more the better: a comparison of access, availability, and comprehensiveness of services between different models of primary health care (PHC) in Nova Scotia. Results from the MAAP-NS study

Emily Gard Marshall, Primary Care Research Unit, Department of Family Medicine, Dalhousie University

Objectives: To determine the benefits (e.g., access, availability and comprehensiveness of services) of various models of primary health care (PHC) currently in place as Nova Scotia (NS) develops and implements a collaborative care framework. Approach: The MAAP-NS study surveyed all primary care practices (85% response rate) and providers (family physicians and nurse practitioner; 60% response rate) in the province by telephone and fax respectively, collecting information on each provider and practice including: accepting new patients, urgent and non-urgent wait times, walk-in options, and comprehensiveness of services. The independent variables are composites of information gathered related to models of care (e.g., number and type of provider, elements of collaboration, remuneration models and governance structures). Results: Among family physicians and nurse practitioners, 70% are co-located and collaborating (C&C); 73% are provider-owned private practices; 76% are fee-for-service. Each of these variables relate to availability of care: C&C providers work more hours (p=0.006) and more often allow walk-ins than solo and not-collaborating providers; non-C&Cs are more likely to accept patients (p=0.03); private practices have fewer hours/week, are less likely to accept patients (both p<0.001), and less likely to allow walk-ins (p=0.03). Fee-for-service providers work fewer hours/week, are less likely to accept patients or allow walk-ins (all p<0.01) than providers on other funding. Comprehensiveness of services did not differ. Regressions indicate collaborating is most predictive of shorter urgent wait times and private governance predicts fewer hours/week and fewer walk-ins allowed (all p<0.05). Conclusion: Collaborative PHC teams currently provide better access and availability than solo providers or multi-provider/non-collaborating practices in Nova Scotia, Canada. Nova Scotia may thus benefit from investment in the new Collaborative Care Framework towards co-located and collaborative PHC practices.

What primary care providers need to know: Information and support searching practices of first time mothers across Nova Scotia

Joelle Monaghan, Dalhousie University School of Nursing

Background: Historically, first-time mothers have turned to families, friends and primary care providers for support and information postpartum. Shifting institutional policies and online resources have altered how and where mothers access information and support. This has left health care providers with limited understanding of how to best organize postpartum health services for mothers in today's society. Purpose: To present the findings of a CIHR funded study, MUMs: Mapping and Understanding Mothers' Social Networks. The study examined how first-time mothers in Nova Scotia identified personal needs and accessed support and information on/offline during their postpartum period. Methodology: Data were collected through multiple methods: focus groups, e-interviews and online forums. Feminist poststructuralism and discourse analysis were used to analyze issues of health equity for mothers and relations of power with health. Findings: Mothers spoke about the importance of feeling normal and having their decisions validated. They wanted face-to-face interactions with other mothers, but were also savvy in searching for information and support, as they questioned information from all sources including health professionals, family, friends, online forums and blogs. Implications: Nurses and other primary care providers need to understand how mothers' practices accessing support and information are socially and institutionally constructed to develop effective and coordinated postpartum care.

Breastfeeding Support for Criminalized Women

Martha Paynter, Advanced-Standing Trainee Student Nurse Dalhousie University School of Nursing

Women are the fastest growing population in Canadian prisons and most women in prison are mothers. There is increasing critical press attention to pregnancy while imprisoned and scholarship on the benefits of prison nurseries. Several federal prisons in Canada have active Mother-Child programs through which children may live with their mothers in custody. Yet, there is almost no research and little practical scholarship on breastfeeding support for criminalized women. Criminalized women are disproportionately subject to histories of physical, sexual and emotional abuse, report high levels of mental illness and addiction, and face extensive socioeconomic barriers to breastfeeding. Highly transient, reaching these clients, developing trusting relationships, and remaining connected is a great challenge. Incarceration is a significant barrier to prenatal education, information seeking, and knowledge sharing with regards to breastfeeding. While incarcerated, women may have access to breast pumps but lack instruction on use, cleaning and milk storage. Women face threats to sustaining breastfeeding when they are paroled or released. Turnover and bureaucracy in corrections departments are challenging to navigate. This paper provides insight into practice for breastfeeding support for criminalized women based on experiences from a perinatal service program in Nova Scotia (NS), Canada.

Co-prescription of antipsychotic and antiparkinson medications: Adherence to guidelines and the STOPP (Screening Tool of Older Persons' potentially inappropriate Prescriptions) criteria in beneficiaries of the Nova Scotia Seniors' Pharmacare Program

Sarah Rehan, College of Pharmacy, Dalhousie University

Patients with Parkinson disease are at increased risk for dementia. Optimal prescribing is critical to minimize adverse effects. This study was designed to study the co-prescription of antipsychotic and antiparkinson medication regimens for older persons and to determine adherence to STOPP criteria and guidelines.
We determined the dispensing of antipsychotic and antiparkinson drug regimens for the Nova Scotia Seniors' Pharmacare Program (NSSPP) beneficiaries aged 66 years and older from April 1, 2009 to March 31, 2014. We determined the number of unique NSSPP beneficiaries who received >= 30 days supply of both antipsychotic and antiparkinson drugs concomitantly. Individual drugs, identified by ATC, and concomitant use were determined. The STOPP criteria (D6) and the US National Parkinson Foundation guideline, which categorized antipsychotics based on their safety and effectiveness were used to determine potentially inappropriate prescribing. Multivariate analysis determined predictors of first choice antipsychotic therapy.
3838 beneficiaries claimed any antiparkinson drug, with 554 also dispensed an antipsychotic medication. For the 294 beneficiaries dispensed an antiparkinson medication regimen containing levodopa, 59.8% of antipsychotic prescriptions were considered first line (quetiapine and clozapine), 27.5% were considered second line (aripiprazole, olanzapine and risperidone) and 12.5% were considered inappropriate. Females 80 years and over had an OR .240 (.105-.547) of receiving a first line drug compared to men 80 and over.
About 87% of patients dispensed an antiparkinson regimen including levodopa received an antipsychotic considered first or second line. Determining the reasons for the gap between the guidelines and prescribing and strategies to facilitate improvement are needed.

Targeted Care for High-Cost Healthcare Users: Gaining knowledge from existing hotspotting programs

Michael Reid, Department of Community Health and Epidemiology Dalhousie University

Most health care resources in Nova Scotia are used by a small percentage of persons with complex needs. Multimorbidity combined with social disadvantage are common attributes of high-cost users (HCUs). Identification of HCUs at the point of care, to provide targeted care and better understand their needs, is a promising strategy for both care and research. This practice is known as "hotspotting". While a number of programs exist, the logistical aspects of their operations are not well documented. A comparative description of program logistics is needed to inform the development of similar programs In Nova Scotia. We surveyed the academic and grey literature to identify established and pilot programs in Canada and the United States. We then contacted program administrators and collected information on hotspotting programs in four different provinces as well as one in New Jersey. We determined that there are three hotspotting models that are used across Canada: Referral, Health Authority Supervised, and Internal Health Authority. The Not-For Profit model in New Jersey operates in a different system, but also has valuable lessons to teach us. By adopting selected best practices from existing programs, we can develop a hotspotting strategy that is tailored to Nova Scotia's needs.

My emotional wellness matters: Primary Health Care initiative to enhance emotional wellness supports and management in a rural community

Lindsay Sutherland, Primary Health Care, Nova Scotia Health Authority

Background: Emotional wellness (EW) is a key dimension of health and when compromised can manifest in individuals as emotional distress (ED). Timely access to effective supports for EW and ED was identified as a need by rural communities in West Hants, Nova Scotia. The Hants Health and Wellness Team (HHWT) provide integrated CDPM services via an interprofessional team in the Primary Health Care (PHC) setting. Objective: The objective of the quality initiative was to promote optimal, relevant and better access to mental health services in primary health care through a collaborative and integrative approach between primary health care and mental health services in West Hants. Methods: A mixed methods study design was applied in this quality initiative to examine the impact of an integrated emotional wellness approach through the collaboration of HHWT with the WHCMHT team. Results: The initiative was able to support improved access and care, improved patient engagement in identifying and receiving care to support EW and 100% surveyed agreed better understanding and ability to manage EW. Potential impact: 1. Citizens have timely and relevant access to mental health services. 2. Primary Health Care has an integrated approach to support and manage EW.

Integrating a Palliative Approach in Primary Health Care

Cheryl Tschupruk, Provincial Palliative Care Coordinator

Early access to palliative care is shown to improve patient and family outcomes. Primary care providers are often the first and most consistent points of contact in the health system. Their role in palliative care is essential as we move toward collaborative team-based care in the primary health care (PHC) system in Nova Scotia. As palliative care evolved into a specialty, lack of role clarity for primary care providers has resulted in some providers having limited involvement in palliative care; therefore, competency and confidence in PHC has decreased. A provincial quality initiative in Nova Scotia is seeking to engage PHC teams exhibiting high readiness to change to help develop, test, and refine an operational framework to integrate a palliative approach into PHC settings. The provincial strategy is currently being tested at a pilot site, namely, in Guysborough community. The provincial strategy includes education, training, mentoring and cares by appropriate providers is being developed. The strategy will be validated in two other sites across the province. Anticipated outcomes include enhancing access, building capacity in primary care, optimizing resources, role clarity, improving patient/family experience, and overall quality palliative care for all Nova Scotians.

The impact of pay-for-performance in primary care on availability of services: Nova Scotia and New Brunswick

Dominika Wranik, Dalhousie University: Faculty of Management - School of Public Administration, Faculty of Medicine - Department of Community Health and Epidemiology

This study measures the impact of three P4P programs in Nova Scotia on services provided. The Comprehensive Care Incentive (CCI) is a payment made to physicians who reach thresholds in the number of obstetric or home care services. These services are also remunerated individually. The Chronic Disease Management (CDMI) incentive is paid upon the completion of a full care cycle for patient with chronic conditions. The Complex Care Visit (CCV) is a new fee billed for visits patients with multiple conditions. Given the nature of these payments, each is studied using a different research design. For example, we measure the number of home care visits before and after the introduction of the CCI, and the number of home care visits during the same time in New Brunswick, where a similar program was not introduced. This allows for a quasi-experimental research design to isolate the impact of the CCI on targeted services. We also assess broader implications, such as the potential crowding out effect of non-targeted services, by tracking changes in service composition in both provinces. This presentation focuses on the proposed study protocol to be submitted to the CIHR Project Scheme competition in June 2017. Feedback and comments from the audience are welcomed.

Primary Health Care Research Day 2017

Abstracts: Working with Vulnerable Populations Oral Presentations

#PHCResearchDay

Rural Community-Based Physical Activity Programming for People with Disability

Amanda Casey, Department of Human Kinetics, St. Francis Xavier University

Health promotion and rehabilitation initiatives are essential for people with newly acquired physical, emotional and cognitive disabilities. Yet few sustainable physical activity programs exist for individuals seeking to continue their rehabilitation in community-based settings especially within the rural context. Increasing access to physical activity opportunities may aid in the prevention and reduction of additional physical and mental health concerns for vulnerable populations. This presentation discusses how the Motor Activities with X (MAX) program in Antigonish, NS has sought to transition people with disability into the community-based rehabilitation environment on a case-by-case basis. Providing access to rehabilitation within the rural community context requires individualized programming as well as adequate training of staff willing to work with people with disability safely and efficiently in the physical activity environment. This presentation discusses the importance of incorporating trained specialists, adapted equipment and family-centered planning in the rehabilitation of people with disability re-entering community settings.

A Qualitative Evaluation of Pediatric Poverty Screening Techniques Used in Primary Care, and Barriers to Their Implementation

Laura Kerr, Dalhousie University

Childhood poverty is a significant public health concern in Canada. Healthcare professionals can help mitigate the effects of poverty, but evidence suggests that screening for poverty is not frequently done, and many providers feel they lack the tools to do so. Screening techniques for pediatric poverty in primary practice were evaluated, including attitudes towards, and perceived barriers to, screening. Additionally, how practitioners established their screening techniques was considered. Eight primary care providers were recruited and completed a thirty-minute interview; these were analyzed using thematic analysis. The pervasive themes indicated that many practitioners lack a screening protocol, using clinical judgment and knowledge of the family to decide when to screen. The major barriers to effective screening were time; and lack of comfort, education on the topic, and familiarity with services to support families.The results showed that improved education in medical training consisting of didactic sessions, and exposure to children living in poverty is essential. Support and knowledge of resources throughout practitioners' careers is needed to maintain comfort in mitigating the social determinants of health. Finally, due to the system barriers inhibiting effective screening, options to better involve allied healthcare professionals in the screening and intervention process should be considered.

Improving primary care for refugee population in Nova Scotia: The Transitional Health Clinic initiative in Primary Health Care

Graeme Kohler**,** Primary Health Care, Nova Scotia Health Authority

Background: Primary care is considered an important health management strategy for immigrant and refugee population in Nova Scotia and Canada. Despite this, evidence shows several significant challenges and barriers including appropriate engagement of primary care providers in enabling appropriate primary care supports for this population. The Transitional Health Clinic (a bridging clinic for newcomers to Nova Scotia) in Primary Health Care has initiated a study to examine barriers and facilitators to effectively transition and attach refugee patients to primary care providers. Objective: To identify and understand the factors that can influence and improve the Transitional Health Clinic in offering relevant care and transitions from provider and patient perspectives. Methods: In a concurrent mixed methods study design and engaging patient team member as part of research team, patients of the clinic, primary care providers and experts across Canada have been engaged through surveys, focus group and interviews in developing to identify core components required to enable confidence, supports, resources, transition criteria and a process. Anticipated results: Better and timely access to primary care supports and leading to a larger study that will explore outcomes of care and further enhancement of primary care and community services for this priority patient population.