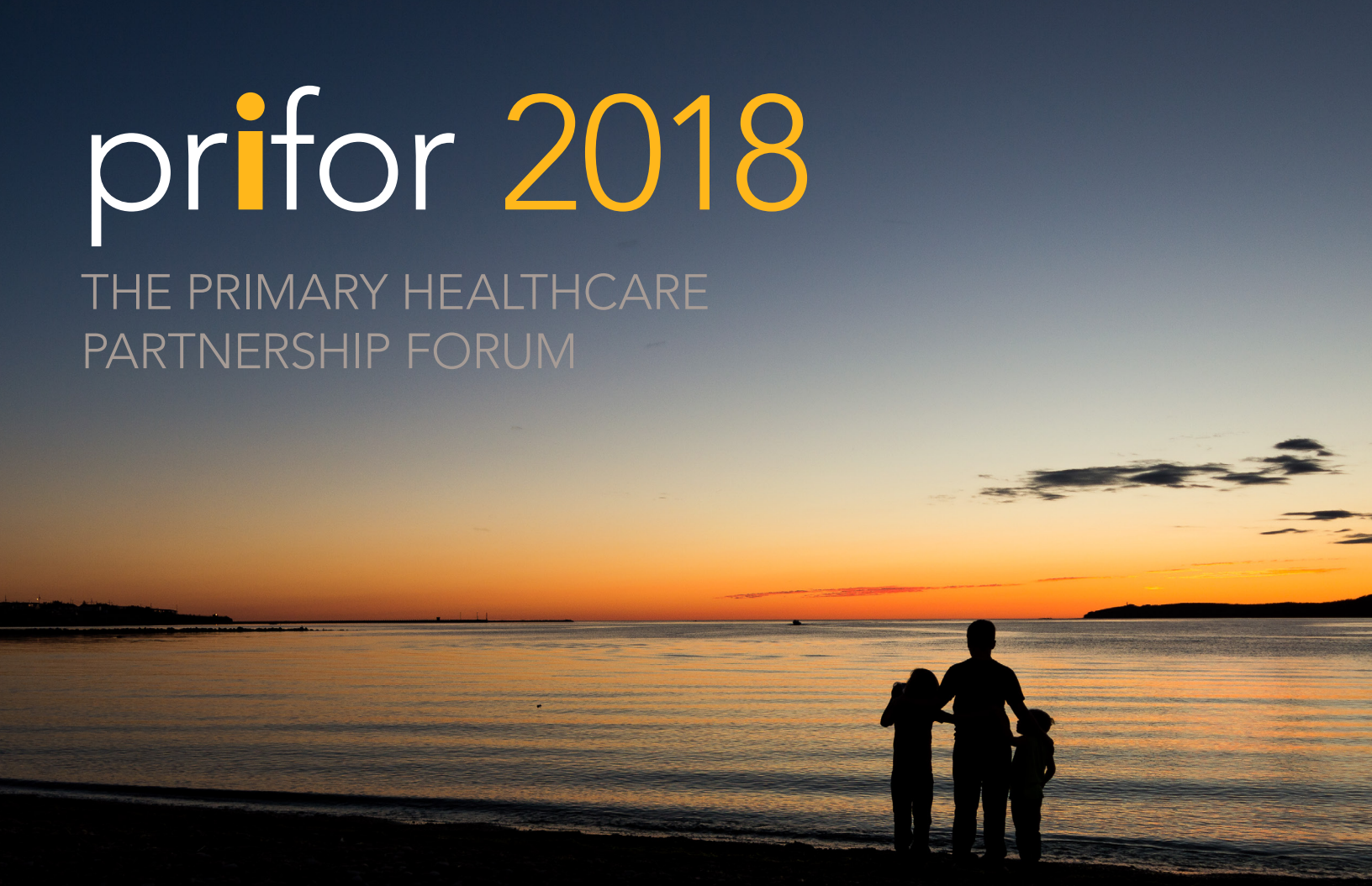
prifor 2018

THE PRIMARY HEALTHCARE PARTNERSHIP FORUM



advancing child and youth mental health services

June 27–29, 2018 • Bruneau Centre for Innovation and Research • St. John's, NL

Program & Abstracts

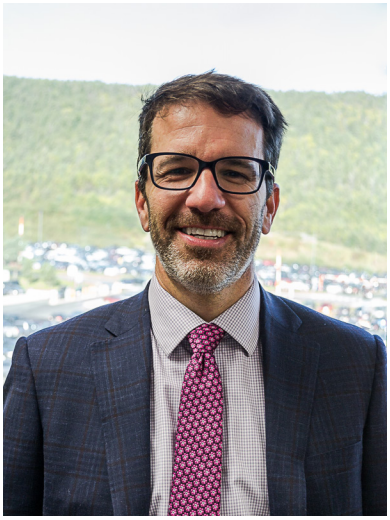
This group learning program has been certified by the College of Family Physicians of Canada and the Newfoundland and Labrador Chapter for up to 10.5 Mainpro+ credits.

The Primary Healthcare Research Unit is approved by the Canadian Psychological Association to offer continuing education for psychologists. The Primary Healthcare Research Unit maintains responsibility for the program.

Contents

Welcome messages

Primary Healthcare Research Unit



On behalf of the Primary Healthcare Research Unit (PHRU), I am excited to welcome you to PriFor 2018, the tenth annual Primary Healthcare Partnership Forum. It gives me particular pleasure to welcome Marshall Godwin, Cathy Peyton and other members of the ACCESS-Mental Health research network who have joined the PHRU in organizing PriFor this year. PriFor has provided a venue for clinicians, policymakers, researchers, administrators, and others working in primary healthcare to meet, showcase new programming and research, and build partnerships. We started holding these meetings to advance and promote primary healthcare in this province, nationally and internationally, and they have become one of the key strategies in helping us realize our vision of better health for Newfoundlanders and Labradorians.

Primary Healthcare in Newfoundland and Labrador has seen big changes in recent years with the introduction of payment reforms and multidisciplinary teams, and increased attention paid to lifestyle, wellness and mental health. Many more changes are being explored, and the PHRU is excited to be working with many of you in these initiatives.

I would like to extend a special thank you to the hardworking and dedicated PHRU staff and to our PriFor sponsors who are outlined in this booklet. This meeting would not be possible without the hard work and generous support of these people and organizations.

Welcome to all of you—those from here in the province, the country, and the rest of the world! I hope you have a productive two days with us, learn something new, and create collaborations that further your work and contribute to continued primary healthcare innovation.

—Dr. Kris Aubrey-Bassler

Welcome messages

ACCESS-MH Team

On behalf of the ACCESS-MH team, I would like to welcome you to PriFor 2018. Approximately five years ago, our team was awarded a community-based primary healthcare team grant from CIHR (Barriers and Facilitators in Access to Child/Youth Mental Health Services: A Community Based Primary Health Care Team). Our acronym ACCESS-MH refers to our project's working title: **Atlantic Canada Children Effective Service Strategies – Mental Health**. The goal of ACCESS-MH was to identify the barriers and facilitators related to the identification and management of children and youth with mental health issues. Our projects were conducted in the Atlantic provinces, and the knowledge generated is relevant to today's mental health environment and to healthcare providers, educators, and patients alike.

Our project is now winding down, and we are focused on disseminating and translating our work to the healthcare community and the community at large. PriFor is an established primary healthcare conference attended by researchers, healthcare providers, and policymakers from across the province, the country and the rest of the world. It was therefore an obvious partner to help us achieve this goal.

I would like to take this opportunity to thank the PIs and other researchers on the ACCESS-MH project who have contributed excellent work to this initiative, especially Dr. Rick Audas, who was the original nominated PI for this project and continued on as co-PI. I would also like to extend a heartfelt thank you to our project manager, Ms. Cathy Peyton, whose dedication and keen management helped to create this project's success.

Thank you for attending PriFor 2018. You will see a lot of oral presentations, workshops, and posters from the ACCESS-MH team at this conference. We hope these presentations will be well-attended by a diverse audience and that you can incorporate the knowledge we have produced into your care of children and youth with mental health problems.

—Dr. Marshall Godwin

Highlights and key points

- A big thank you to our sponsors; please visit their booths in the atrium.
- This year we are having a special preconference event, featuring our day one keynote speaker, Dr. Ian Manion. This is a free event that is open to the public; see details on the opposite page.
- Lunch on both days and all breaks are in the main floor of the atrium of the Bruneau Centre with the posters and exhibitors.
- Registration begins at 7:45 a.m. on Thursday, with opening remarks at 8:30 a.m.; Friday starts at 8:30 a.m.
- The award for Primary Healthcare Researcher of the Year will be presented to Dr. Roger Butler during lunch on Thursday.
- **Posters:** There are two full-day poster sessions; those presenting posters should have them up on their designated board before the start of the respective conference day and take them down by the end of the conference day. Presenters are asked to stand by their posters during the designated time each day.
- **Oral presentations/workshops:** There are three rooms with presentations & workshops running concurrently on each day. All oral presentations will be held in A-1043 and next door in A-1046 on the main floor of the Arts building; most workshops will be held in A-3020. There will be signage posted and staff to lead you to from the main lecture theatre in the Bruneau Centre to the breakout rooms in the Arts building next door. All presenters should have received a letter indicating the room and time of their presentation. Please give your presentation on USB flash drive to your room monitor or one of the IT people **at least an hour before** the block of sessions in which your presentation is scheduled.
- **Plenary sessions:** There are two keynote addresses and a panel presentation in Innovation Hall (IIC-2001):
  - Following the opening remarks on Thursday morning, Ian Manion will be back to start things off speaking about integrated models of care for child and youth mental health.
  - Immediately following Dr. Manion's talk, there will be a panel discussion featuring representatives from the government of Newfoundland and Labrador regarding the transformation of child and youth mental health care services in the province.
  - Friday begins with Dr. Kimberly Schonert-Reichl, who will discuss social and emotional learning for children and youth.
- **Please feel free to approach any of the conference staff if you need help. They will be wearing RED name tags.**

Preconference evening event

Wednesday, June 27

7–9 p.m.

Room: **IIC-2001**

Facilitator: **Dan Goodyear**

10 Hot Topics in Child and Youth Mental Health

Ian Manion

This year, PriFor is opening its doors to the general public for a special preconference event. Our guest speaker, Dr. Ian Manion (whose bio is detailed on the following page), will be speaking about trending matters in child and youth mental health. After Dr. Manion's talk, the floor will be open for questions, comments, and discussion.

Registration at PriFor is not required for this free special event. We expect attendees from all backgrounds, and welcome anyone who has an interest in child and youth mental health.

Free parking for this event is available in Area 17 (directly in front of the Bruneau Centre). Light refreshments will be provided.

Plenary sessions

Thursday, June 28

8:45–9:45 a.m.

Room: **IIC-2001**

Facilitator: **Kate Tillieczek**

Working Together for Child and Youth Mental Health: Integrated Models of Care

Ian Manion

Dr. Ian Manion is a clinical psychologist and scientist-practitioner who has worked with children, youth and families for over 30 years. He is an adjunct professor in the School of Psychology at the University of Ottawa. Currently, he is the director of youth mental health research at the Institute of Mental Health Research. He is actively involved in research on mental health promotion, youth depression and suicide. He has a particular interest in systems research and how services are organized to best meet the mental health needs of youth. He is a committed advocate for child and youth mental health, sitting on local, provincial, national and international boards and committees. He is co-scientific director for Frayme, a newly funded international knowledge translation and mobilization network in integrated youth mental health care. Ian is co-founder of Youth Net/Réseau Ado, a bilingual, community-based, mental health promotion program with satellites across Canada and Europe.

Thursday, June 28

9:45–10:45 a.m.

Room: **IIC-2001**

Facilitator: **Roger Chafe**

Transforming Child and Youth Mental Health Services in Newfoundland and Labrador

Colleen Simms, Linda Warford, Lisa Baker-Worthman, Cameron Campbell

This panel session will provide an overview of the work that is being done by the province in collaboration with key stakeholders to transform how child and youth mental health and addictions, primary health, and community support services will be delivered in Newfoundland and Labrador. The provincial government is developing a plan for a comprehensive integrated service delivery program to meet the needs of children, families, youth and emerging adults ages 0–25 as outlined in the Towards Recovery Action Plan. This new service delivery model will address existing barriers or gaps in current services and forge a responsive, integrated, and person-centred continuum of services from prevention and early intervention to more intensive treatment services and ongoing support and community care. To inform the development of the plan, the province is partnering with people and families with lived experience, multiple government departments, school boards, RHAs, community agencies, and others to ensure that an inclusive continuum of services will be provided at the right time, right intensity, right place and by the right people.

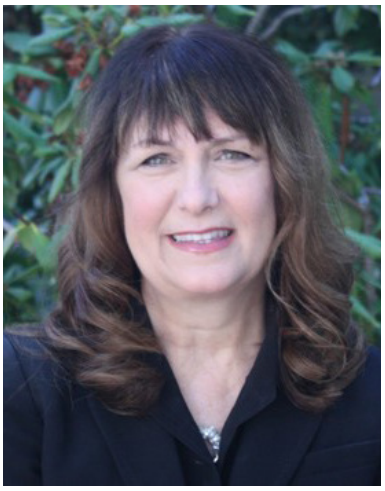
Plenary sessions

Friday, June 29 8:30–9:30 a.m.

Room: **IIC-2001** **Facilitator:** **Brandi Bell**

A New Kind of Fitness: Strengthening the Social and Emotional Competence and Well-Being of Children and Adolescents Through Social and Emotional Learning

Kimberly Schonert-Reichl



Dr. Kimberly Schonert-Reichl is an applied developmental psychologist and a professor in the Department of Educational and Counselling Psychology, and Special Education in the Faculty of Education at the University of British Columbia. She is also the director of the Human Early Learning Partnership (HELP), an interdisciplinary research unit in the School of Population and Public Health in the Faculty of Medicine at UBC. Prior to her graduate work, Dr. Schonert-Reichl worked as middle school teacher and then as a teacher at an alternative high school for "at risk" adolescents. As a renown expert in social and emotional learning (SEL), Dr. Schonert-Reichl's research focuses on identification of the processes that foster positive human qualities such as empathy, compassion, altruism, and resiliency in children and adolescents. Her projects include studies examining the effectiveness of classroom-based universal SEL programs, including the Roots of Empathy, MindUp program, the Taxi Dog Educational Curriculum, and the Random Acts of Kindness Curriculum.

Conference agenda

Thursday

Thursday, June 28			
7:45–8:30 a.m.	Registration Bruneau Centre atrium		
8:30–8:45a.m.	Welcome & opening remarks IIC-2001		
8:45–9:45 a.m.	**Working Together for Child and Youth Mental Health: Integrated Models of Care** Ian Manion IIC-2001		
9:45–10:45 a.m.	**Transforming Child and Youth Mental Health Services in Newfoundland and Labrador** Colleen Simms, Linda Warford, Lisa Baker-Worthman, Cameron Campbell IIC-2001		
10:45–11:30 a.m.	Research poster viewing / exhibitor viewing / refreshment break Bruneau Centre atrium		
11:30 a.m.–12:30 p.m.	Mental Healthcare Delivery I A-1043	Primary Healthcare Delivery I A-1046	Systematic Review Workshop A-3020
12:30–1:15 p.m.	Lunch Bruneau Centre atrium		
1:15 p.m.–2:15 p.m.	Mental Healthcare Delivery II A-1043	Primary Healthcare Delivery II A-1046	Program Evaluation Workshop A-3020
2:15–2:30 p.m.	Refreshment break Bruneau Centre atrium		
2:30–4:30 p.m.	Current Issues in Mental Healthcare A-1043	Chronic Disease A-1046	School Issues & Youth Mental Health Needs Workshop A-3020

Conference agenda

Friday

Friday, June 29			
8:30–9:30 a.m.	**A New Kind of Fitness: Strengthening the Social and Emotional Competence and Well-Being of Children and Adolescents Through Social and Emotional Learning** Kimberly Schonert-Reichl IIC-2001		
9:30–10:15 a.m.	Research poster viewing / exhibitor viewing / refreshment break Bruneau Centre atrium		
10:15–11:45 a.m.	Participatory Research in Indigenous Healthcare Workshop A-1043	Transformational Systems Redesign Workshop A-1046	Youth with Behavioural & Emotional Difficulties Workshop A-3020
11:45 a.m.–12:30 p.m.	Lunch Bruneau Centre atrium		
12:30–2:10 p.m.	Youth Mental Health and Well-Being A-1043	Variety Pack I A-1046	Research & Engagement in Child & Youth Mental Health Workshop A-3020
2:10–2:40 p.m.	Refreshment break Bruneau Centre atrium		
2:40–3:40 p.m.	Variety Pack II A-1043	Technology in Healthcare A-1046	Knowledge Translation Workshop A-3020
3:40 p.m.	Conference adjourns		

Sessions in detail

Thursday morning

Room:	Facilitator:	Monitor:
A-1043	**Michael Zhang**	**Nicole Porter**
Mental Healthcare Delivery I		
11:30 a.m.	The Impact of Demographic Clinical and Provider-Level Factors on Psychiatric Inpatient Length of Stay in New Brunswick	David Miller See abstract on page 41
11:50 a.m.	Primary care provider referral patterns in New Brunswick: An in-depth analysis and comparison of psychiatric wait times to other medical specialties	Emma Boulay See abstract on page 36
12:10 p.m.	Optimal Decisions for Mental Health Services for Youth when Patients Switching to Emergency Department	Zainab Almukhtar See abstract on page 34
Room:	**Facilitator:**	**Monitor:**
A-1046	**Mehdee Araee**	**Olivia Cleary**
Primary Healthcare Delivery I		
11:30 a.m.	Bonavista Primary Health Care: A New Approach	Janelle Hippe See abstract on page 22
11:50 a.m.	Rostering Patients for Continuity in Primary Health Care	Cassie Chisholm See abstract on page 37
12:10 p.m.	The Access Clinic	Katie Bennett See abstract on page 38
Room:		**Monitor:**
A-3020		**Sarah Boyd**
Systematic Review Workshop		
11:30 a.m.	Understanding Systematic Reviews	Amanda Hall See abstract on page 45

Sessions in detail

Thursday afternoon

Room: A-1043	Facilitator: Cathy Peyton	Monitor: Tom Heeley

Mental Healthcare Delivery II

1:15 p.m.	CHRSP and Mental Health: Decision Support Methods and Results	Pablo Navarro See abstract on page 23
1:35 p.m.	Stigma as a Barrier: A Qualitative Assessment of Stigmatized Attitudes Towards Mental Health Services in Post-Secondary Education	Roisin Walls See abstract on page 37
1:55 p.m.	Stop Now And Plan SNAP Effecting Change in Children's Mental Health	Leena Augimeri See abstract on page 38

Room: A-1046	Facilitator: Amanda Hall	Monitor: Oliver Hurley

Primary Healthcare Delivery II

1:15 p.m.	The Economic Impacts of SurgeCon: A Unique Surge Management Platform to Reduce Emergency Department Wait Times	Mehdee Araee See abstract on page 39
1:35 p.m.	Primary Health Care in the Health Home Model	Cassie Chisholm See abstract on page 36
1:55 p.m.	Community Empowerment and Collaboration in PHC: The Botwood Experience	Karen Butler See abstract on page 24

Room: A-3020		Monitor: Sandra Parsons

Program Evaluation Workshop

1:15 p.m.	Program Evaluation in Academic and Clinical Settings: Developing Logic Models and Evaluation Frameworks	Russell Dawe See abstract on page 44

Sessions in detail

Thursday afternoon

Room: A-1043	Facilitator: Scott Ronis	Monitor: Sara O'Reilly
Current Issues in Mental Healthcare		
2:30 p.m.	Mental Health Care-Seeking Experiences of Mothers in Atlantic Canada	Sarah Gallant See abstract on page 34
2:50 p.m.	Youth Parent and Service Provider Perspectives on Technology and Mental Health	Brandi Bell See abstract on page 42
3:10 p.m.	Embarrassment of Riches: Youth Mental Health and Poverty	Kate Tilleczek See abstract on page 26
3:30 p.m.	Hospitalizations due to Self-Poisoning at a Canadian Paediatric Hospital	Roger Chafe See abstract on page 31
3:50 p.m.	The Effectiveness of Transitions as a Self-Learning Tool Designed to Improve Mental Health Literacy of Students in Higher Education	Katherine Houser See abstract on page 40
4:10 p.m.	A Survey Study on a Mental Health Literacy Intervention for University Students	Keltie Wagstaff See abstract on page 20
Room: A-1046	**Facilitator: Kris Aubrey-Bassler**	**Monitor: Sarah Boyd**
Chronic Disease		
2:30 p.m.	Improving Outcomes for Youth with Type 1 Diabetes in Transition to Adult Care by Strengthening the Engagement with Primary Care	Roger Chafe See abstract on page 32
2:50 p.m.	Patient preferences among individuals with type 2 diabetes for attributes of diabetes medications: A Discrete Choice Experiment	Jennifer Donnan See abstract on page 35
3:10 p.m.	Exploring Opportunities to Optimize the Organization of Primary Health Care Services for Individuals with Chronic Diseases Across Newfoundland and Labrador	Richard Buote See abstract on page 29
3:30 p.m.	Association of early history of asthma and COPD diagnosis in later life: A systematic Review and Meta-analysis	Michael Asamoah-Boaheng See abstract on page 21
3:50 p.m.	Development of a questionnaire for a discrete choice experiment: A case study on osteoarthritis medications	Bethan Copsey See abstract on page 26
4:10 p.m.	Is there a bias or conflict of interest in breast screening recommendations?	Anne Kearney See abstract on page 32

Room: A-3020 **Monitor:** Olivia Cleary

School Issues & Youth Mental Health Needs Workshop

2:30 p.m.	The Twice-Exceptional Child - Diagnosis - Misdiagnosis - School Issues and Mental Health Needs	Jacques Richard See abstract on page 45

Sessions in detail

Friday morning

Room: A-1043 **Monitor:** Tom Heeley

Participatory Research in Indigenous Healthcare Workshop

10:15 a.m.	Building Capacity in Discovery: Working Towards Participatory Research in Indigenous Primary Healthcare	Zaida Rahaman See abstract on page 43

Room: A-1046 **Monitor:** Sandra Parsons

Transformational Systems Redesign Workshop

10:15 a.m.	Empowering Change: Leading PHC Teams toward Transformational Systems Redesign	Karen Butler See abstract on page 43

Room: A-3020 **Monitor:** Emily Lockyer

Youth with Behavioural & Emotional Difficulties Workshop

10:15 a.m.	Working With Families of Youth With Emotional or Behavioural Difficulties	Scott Ronis See abstract on page 45

Sessions in detail

Friday afternoon

Room: A-1043	Facilitator: Jacques Richard	Monitor: Sandra Parsons

Youth Mental Health and Well-Being

12:30 p.m.	Using the arts to engage and promote health and wellness in youth	Lisa Bishop See abstract on page 41
12:50 p.m.	Key Assets NL and our Family-Based Care Model	Kristen Hynes See abstract on page 33
1:10 p.m.	Evaluating health service utilization among children and youth with mental health disorders in Newfoundland Labrador	Heather Conway See abstract on page 28
1:30 p.m.	Coordinated Access for Youth at Risk for or Experiencing Homelessness in NL	Joshua Smee See abstract on page 25
1:50 p.m.	Engaging At-Risk Youth - The Essential Voices in Research Choices	Angela Power See abstract on page 27

Room: A-1046	Facilitator: Russell Dawe	Monitor: Nicole Porter

Variety Pack I

12:30 p.m.	High School Sexual Health Program Eastern Health	Donna Dawe See abstract on page 30
12:50 p.m.	How collaboration helped redesign mental health and addictions services on the Burin Peninsula	Evelyn Tilley See abstract on page 31
1:10 p.m.	Developing Effective Teamwork in Health and Social Care in Newfoundland and Labrador: A Provincial Plan	Chelsey McPhee See abstract on page 25
1:30 p.m.	Exploring Coping Strategies among Food Insecure University Students	Lisa Blundell See abstract on page 29
1:50 p.m.	Challenges and Future Directions for Refugee Health Care in St. John's	Christine Aubrey-Bassler See abstract on page 22

Room: A-3020		Monitor: Sara O'Reilly

Research & Engagement in Child & Youth Mental Health Workshop

12:30 p.m.	Journey Mapping as a Tool for Research and Engagement in Child and Youth Mental Health	Brandi Bell See abstract on page 44

Sessions in detail

Friday afternoon

Room:	Facilitator:	Monitor:
A-1043	**Amanda Hall**	**Rebecca Lawrence**

Variety Pack II

2:40 p.m.	Laboratory Support of Primary Health Care: A programmatic perspective	Laura Gilbert See abstract on page
3:00 p.m.	Advancing Family Practice Nursing in Canada: An Environmental Scan of International Literature and National Efforts towards Competency Development	Julia Lukewich See abstract on page 21
3:20 p.m.	The Baby Friendly Journey in Newfoundland and Labrador: A Five-Year Review	Anne Drover See abstract on page 39

Room:	Facilitator:	Monitor:
A-1046	**Kris Aubrey-Bassler**	**Emily Lockyer**

Technology in Healthcare

2:40 p.m.	Chronic Disease Registry	Donna Roche See abstract on page 23
3:00 p.m.	HEALTHeNL: Do you have access to the province's Electronic Health Record?	Raleen Murphy See abstract on page 30
3:20 p.m.	Expanding Telehealth in Newfoundland and Labrador	Ashley Dinn See abstract on page 28

Room:	Monitor:
A-3020	**Adam Pike**

Knowledge Translation Workshop

2:40 p.m.	Getting Your Message Out There: Tools and Approaches to Reach Non-Academic Audiences	Nicole Porter See abstract on page 44

Poster presentations

Thursday

Room: **Bruneau Centre atrium**

Monitors: **Elnaz Bodaghkhani, Gelareh Ghaderi**

1	Appropriateness of General Practitioner CT Referrals for Patients with Low Back Pain: A Medical Record Review	Gabrielle Logan See abstract on page 49
2	What are the areas for physiotherapy service improvement for low back pain	Amanda Hall See abstract on page 68
3	Appropriateness of CT and X-ray Imaging for Patients with Low Back Pain: A Systematic Review	Gabrielle Logan See abstract on page 49
4	The Key Domains of Behaviour that Are Impeding or Enhancing the Self-Management of Type 2 Diabetes using Theoretical Domains Framework	Taylor Wilson See abstract on page 66
5	Primary care lifestyle interventions for type 2 diabetes prevention: A systematic review and meta-analysis of randomized controlled trials	Richard Buote See abstract on page 63
6	Promoting Youth Mental Health and Well-Being Through a Community-Based Music Program	Stephen Darcy See abstract on page 63
7	From Information to Implementation: eMental Health Technologies for Anxiety and Depression in Childhood and Adolescence	Lori Wozney See abstract on page 55
8	A Cross-Sectional Analysis of Prevalence of Mental Disorders and Access to Mental Health Care Among Youth	Isabel Garces Davila See abstract on page 46
9	Mental Health Care Utilization Among Youth with Mental Disorders: A Cross-Sectional Analysis of Hours and Types of Services Consulted	Isabel Garces Davila See abstract on page 58
10	A snapshot of inter-jurisdictional employment: Relevancy for youth and families	Kathryn Malcom See abstract on page 47

Poster presentations

Thursday

Room: **Bruneau Centre atrium**

Monitors: **Elnaz Bodaghkhani, Gelareh Ghaderi**

11	Long-Term Food Insecurity and Obesity in NL	Courtney Abbott See abstract on page 58
12	Gluten-Free Diet and Consumption of Folate-Rich Foods: A Preliminary Investigation Among Non-Celiac Adults in Newfoundland and Labrador	Aldara Mackay See abstract on page 55
13	Effectiveness of Cognitive Behavioural Therapy Versus Combination Therapy in the Treatment of Binge Eating Disorder: A Systematic Review and Meta-analysis	Brittany Howell See abstract on page 53
14	Investigating the Potential to Incorporate Farm to School Activities in a Sample of Newfoundland and Labrador Schools	Amy O'Driscoll See abstract on page 57
15	NL coaches knowledge regarding recognition of and response to sports related concussion in the adolescent	Wanda Emberley-Burke See abstract on page 59
16	An analysis of the factors affecting pharmacists perception of their work environment and provision of patient care in Newfoundland and Labrador	Erin Davis See abstract on page 47
17	The development of professional identity in pre-clerkship medical students at Memorial University. An ethnographic case study	Jinelle Ramlackhansingh See abstract on page 65
18	The Impact of Long-term SES on Health of Canadian Seniors	Courtney Abbott See abstract on page 65
19	Common Indicators of Primary Healthcare: Preliminary Results of a Survey of Patients of Family Physicians in NL	Sandra Parsons See abstract on page 52
20	Off the Beaten Path: Effect of a Research Training Program for Rural Doctors on Research Competency	Cameron MacLellan See abstract on page 60

Poster presentations

Friday

	Room: Bruneau Centre atrium	Monitors: Cameron MacLellan, Tosin Badejo
1	Social Capital in Northern Canada: Healthcare Research Communities Examined	Thomas Heeley See abstract on page 64
2	Patan Academy of Health Sciences District Health System Rotation: Program Evaluation	Russell Dawe See abstract on page 61
3	Preliminary Analysis of Small Area Variation in High-Cost Hospital Use in Newfoundland and Labrador and Associated Predictive Factors	John Knight See abstract on page 62
4	Validity and Feasibility of Facebook Advertising in Recruiting Participants for a Cross-Sectional Survey in Newfoundland and Labrador	Lance Shaver See abstract on page 66
5	Assessing the quality of HIV care in the primary healthcare setting in Canada	Jillian Hurd See abstract on page 51
6	Vulvodynia: Addressing Patient Identified Gaps in Primary Care Provider Knowledge of a Condition with Significant Impact on Quality of Life	Krisztina Bajzak See abstract on page 67
7	Effects of Meteorological factors on Asthma hospitalization among adults in Newfoundland and Labrador	Elnaz Bodaghkhani See abstract on page 54
8	Does place of residence have any impact on hospitalization and mortality of patients with asthma and chronic obstructive pulmonary disease (COPD) in Newfoundland and Labrador?	Gelareh Ghaderi See abstract on page 53
10	Prevalence and Risk Factors of ACOS (Asthma COPD Overlap Syndrome) in adult Aboriginal People.	Adetola Koleade See abstract on page 62

Poster presentations

Friday

Room: **Bruneau Centre atrium**

Monitors: **Cameron MacLellan, Tosin Badejo**

11	An Evaluation of Treatment Interventions for Emerging Adults with Substance Use Disorder: A Systematic Review	Kathryn Dalton See abstract on page 48
12	Substance Exposed Newborn: A retrospective chart review	Michael Hand See abstract on page 64
13	Opioid Dependence Treatment in Primary Health Care - Access to Suboxone	Cassie Chisholm See abstract on page 61
14	Breast Milk Expression after Domperidone Treatment in Postpartum Women: A Systematic Review and Meta-analysis of Randomized Controlled Trials	Alicia Taylor See abstract on page 51
15	Assessing the Effects of Delayed Newborn Bathing in a Retrospective Cohort Study in Newfoundland and Labrador	Susan Warren See abstract on page 50
16	Knowledge and Attitudes Towards Breastfeeding among Memorial University Medical Students	Amanda Pendergast See abstract on page 57
17	Crossing lines of communication Women's experience of follow up care after miscarriage in the vicinity of St. Johns Newfoundland and Labrador	Rhiannon Tracey See abstract on page 52
18	Impact of a standardized Uniform on Registered Nurses in NL	Gladys Schofield See abstract on page 56
19	A scoping review of the utilization of the Nursing Role Effectiveness Model within healthcare research	Julia Lukewich See abstract on page 46
20	Nurturing the Seeds of Children Mental Health. Engaging Mothers and Professionals to Make Perinatal Mental Health a Critical Item in Primary Healthcare	Martha Traverso-Yepez See abstract on page 59

Abstracts

Oral Presentations

A Survey Study on a Mental Health Literacy Intervention for University Students

Keltie Wagstaff, Michael Zhang

Context: Transitions is the first evidence-based publication to offer information on the skills necessary to successfully navigate university life (Teen Mental Health, 2017). Mental health literacy is one of the main themes addressed in the document. Objective: A comprehensive assessment of the mental health literacy intervention on mental health outcomes. Design: Prior to receiving a 142-page hard copy of the Transitions content, students in first-year classes at a university in Halifax, Nova Scotia were asked to fill out a questionnaire designed to assess basic understanding of mental disorders and treatments, beliefs and attitudes around mental illnesses and persons with a mental illness, as well as beliefs, self-efficacy, and intentions when it comes to seeking help for a mental health problem (Kutcher & Wei, 2017). Students were then given time to use the information in an independent-learning context to gain knowledge and skills addressed in the booklet. Following this, students were given a follow-up questionnaire that consisted of the same mental health literacy assessment questions as the initial survey (Kutcher & Wei, 2017). Participants: University students. Intervention/Instrument: A total of 948 students filled out the initial survey prior to reading the materials, and 484 completed the follow-up. 345 pre- and post-intervention student surveys were matched by student number. Ordinal likert-scale variables for individual questions were assigned values and tallied for the following total scores: knowledge/beliefs regarding mental health, sexual health, learning styles & disorders, and identity; stigmatising attitudes and discriminatory intentions towards persons with a mental disorder (self and others); and help-seeking attitudes & intentions for mental health problems and disorders (self and others). Outcome measures: mental health knowledge, attitude, help-seeking behavior, perceived stress and general health measures. Results: Of the 948 students who participated in the initial survey, 393 (48.70%) identified as “male”, 410 (50.81%) as “female”, 2 as other, 2 opted not to disclose and 141 surveys were missing responses. 622 (65.61%) students indicated that their first language is English, and 180 (18.99%) indicated a different first language (language groups were categorized as English and other because the Transitions content was offered in English to all students). 237 participants were international visa students at the time of the first survey and 569 were Canadian citizens or residents. 196 participants in the follow-up survey identified as “male”, 147 as “female” and 1 as “other”. Increases in knowledge of between 1.97 and 2.59 points (95% CI) were observed in the paired sample (n=345) t-test for difference in means following receipt of the Transitions materials. Wilcoxon signed-rank test for paired samples indicated positive changes in stigmatising attitudes which translate to more positive and inclusive attitudes towards persons with a mental illness. As well, differences in help-seeking attitudes scores indicated more positive attitudes and intentions towards help-seeking for mental health problems following the intervention. Positive (non-stigmatising) attitudes were moderately and positively associated with help-seeking attitudes and intentions in both time periods (Spearman’s rho of 0.46 and 0.54 respectively, $p < 0.01$). Conclusion: Although participants gained knowledge around mental health literacy these increases did not appear to be associated with reductions in stigmatising attitudes or increased help-seeking attitudes and intentions. The results of this study impel further investigation into how the relationships between different components of mental health, and motivations for help-seeking in university student populations.

Advancing Family Practice Nursing in Canada: An Environmental Scan of International Literature and National Efforts towards Competency Development

Julia Lukewich

Context: Family practice nurses (also known as primary care nurses) are registered nurses who practice in primary healthcare and function as generalists who provide a broad range of health services, including preventative screening, health education, chronic disease management, care coordination, and system navigation. Although family practice nurses form the core of interprofessional primary healthcare teams, the degree to which family practice nurses have been integrated into primary healthcare varies substantially across provinces/territories. To support the integration and optimization of the family practice nursing role in Canada, a defined set of Canadian family practice nursing competencies is needed. Objective: To report on the current state of family practice nursing in Canada and findings from an environmental scan of literature focused on family practice nursing competency development internationally. Design: Environmental scan Participants: A search was conducted in CINAHL, PubMed, and Google Scholar. Keywords included: "professional competence", "family nursing", "primary care", "primary healthcare", and "community health nursing". No date limitations were applied and articles written in English that discussed any aspect of family practice nursing competency development were considered eligible for inclusion. Post-graduate family practice nursing education programs in Canada were contacted individually to inquire about the availability of educational competencies and other relevant resources. Intervention/Instrument: N/A Outcome measures: N/A Results: Our results indicate that family practice nursing competencies are being examined internationally, and that development of family practice nursing competencies lags in Canada compared to international work. Common themes in family practice nursing competencies identified across the international literature included clinical practice, communication, professionalism, health promotion, teamwork/collaboration, education, research/evaluation, and information technology. In Canada, the development of family practice nursing competencies is being led by the Canadian Family Practice Nurses Association (CFPNA), in collaboration with key stakeholders including CNA and an expert research team. Conclusion: Efforts are being made to implement team-based models of primary healthcare with optimized roles for all providers. The lack of information about the role and deployment of family practice nurses in Canada has contributed to their under utilization and missed opportunities to contribute to high-quality patient care. The development of a defined set of national family practice nursing competencies is a long overdue approach to begin addressing this gap.

Association of early history of asthma and COPD diagnosis in later life: A systematic Review and Meta-analysis

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Context: While most studies have reported prior history/diagnosis of asthma as an independent risk factor for COPD development in later life, no systematic review and meta-analysis has been conducted to synthesize these observational studies. Objective: The aim of this review is to investigate associations between prior history of asthma and later development of COPD. Design: We conducted a comprehensive search in PubMed, Cinahl and Embase on studies related to prior history of asthma and COPD diagnosis. Articles were screened for relevance by two independent reviewers. Methodological quality was independently assessed, and data extracted for qualitative and quantitative review. Heterogeneity was explored and publication bias check was performed. Participants: General population with individuals aged 5 years and older. Intervention/Instrument: The exposure variable used in this study was prior history of asthma compared with no history of asthma. Outcome measures: developing COPD in later life. Results: From the 1260 articles retrieved, 10 studies were finally selected to be included in the qualitative review, and 7 studies for the meta-analysis. History of asthma was significantly associated with developing COPD in

later life (Inverse Variance Random effects model, OR: 7.99, 95% CI: 5.28-12.10, p<0.00001). Conclusion: Studies with high methodological quality provided sufficient evidence to suggest that individuals with previous history of asthma have an increasing likelihood of developing COPD in later life.

Bonavista Primary Health Care: A New Approach

Janelle Hippe, Dena Trask, Michele Guy, Debbie Walsh, Janet Fisher, Joy Thompson, Gerard Gibbons, Nicole Gill, Tracy Parsons

Context: Bonavista has been at the forefront of renewed interest in finding innovative and efficient ways to deliver primary health care. While recruitment and retention of primary providers remains a critical goal, stakeholders in Bonavista have also broadened their approach to focus on coordination, communication, and collaboration among individuals working to their full scope of practice. Objective: Since early 2015, primary health care leaders in Bonavista have built on past successes and strengths to implement improvements in key areas including patient flow, technology access and utilization, and chronic disease management. Target audience: The improvements to primary health care in Bonavista have had positive benefits for residents of the region. Improvements in Bonavista can also serve as a model for other areas in the province. Description: Improvements to patient flow have included the implementation of a screening process at the Bonavista Health Centre designed to ensure that non-emergent patients presenting to the Emergency Department receive care from the appropriate provider. Improvements to technology utilization have included securing provider access to the HealtheNL Viewer, introduction of remote patient monitoring, and implementation of the Electronic Medical Record (EMR) at the Bonavista Health Centre. Improvements to chronic disease management have included the development of clinical decision support triggers within the EMR. Other improvements to chronic disease management facilitated by the EMR include improved access to point of care patient information and enhanced collaboration and communication among providers Evaluation: An evaluation framework was finalized in June 2017. The evaluation has assessed the impact of improvements in domains including: access to services, continuity of care, quality of care, and patient and provider satisfaction. Evaluation methods have included the collection of administrative and program data as well as interviews and focus groups with patients and providers. Evaluation results show that improvements implemented in Bonavista have resulted in enhanced patient access to appropriate care as well as enhanced provider ability to provide high quality care. Conclusion: Primary health care successes in Bonavista have had a positive impact on patient care. Lessons learned in Bonavista can help to guide other primary health improvements across the province.

Challenges and Future Directions for Refugee Health Care in St. John's

Christine Aubrey-Bassler

Context: St. John's, Newfoundland receives several hundred United Nations High Commissioner for Refugees (UNHCR) refugees per year for resettlement, most of whom are Government Assisted Refugees (GARs). In 2015, the Refugee Health Clinic was created at the Discipline of Family Medicine, Faculty of Medicine, Memorial University of Newfoundland to help address the need for local, comprehensive, high quality, evidence-based refugee health care. Since that time, numerous initiatives have been undertaken by the Refugee Health Clinic to address recurrent challenges in the delivery of health care for refugees in St. John's. Objective: This presentation will provide a current program description of the Refugee Health Clinic, with its existing and planned initiatives. A focus will be on strategies to decrease missed appointments in this population. Target audience: Health care providers, primary care researchers, community members Description: Areas to be reviewed include challenges involving new refugee medical intake, health care coordination for different classes of refugees, language interpretation, access to primary care, and access to specialty and other booked appointments. Strategies to address these challenges include the development of a multi-disciplinary Refugee Health Team, collaborative appointment coordination

protocols with community and faculty partners, language interpretation initiatives, streamlined medication prescription and delivery, provision of latent tuberculosis management, language school walk-in clinic, encouraging community physician involvement, and research into missed appointments and perceived health care challenges for increased refugee health care advocacy. Evaluation: Current research into health care of recent refugee arrivals in St. John's involving quantification of missed appointments and investigation of challenges in obtaining health care. Conclusion: Provision of refugee health care is multifaceted and requires novel strategies to address unique cultural and socioeconomic factors.

Chronic Disease Registry

Donna Roche, Kendra Lester

Context: In January 2011, the Auditor General of Newfoundland and Labrador reported that the Department of Health and Community Services does not have a province-wide diabetes registry. One of the recommendations from the Auditor General was to "pursue the further development of the database and obtain a memorandum of understanding with the NLCHI and the RHAs to facilitate data sharing." As a result, the Department of Health and Community Services engaged the Newfoundland and Labrador Centre for Health Information (NLCHI) to develop a Chronic Disease Registry. Objective: To create a chronic disease registry to enable the systematic collection, analysis, interpretation, and dissemination of population-specific information. Target audience: Health system decision-makers and researchers Description: The Chronic Disease Registry allows for a provincial approach to identifying new and existing chronic disease patients, as well as information about how these patients are being managed, their health service utilization, health outcomes and health costs. The registry currently includes seven chronic diseases (diabetes, asthma, COPD, heart failure, hypertension, ischemic heart disease, and stroke). At the provincial level, the chronic disease registry is used to provide important information for policy decision-making, program planning and program monitoring. At the regional level, the chronic disease registry will be used to support quality patient care. With appropriate approvals, data in the chronic disease registry may also be used for research purposes. The chronic disease registry is currently being used to inform a number of primacy health care initiatives in the province. Evaluation: N/A Conclusion: As of September, 2017, NLCHI has been granted official custodian status for the NL Chronic Disease Registry. Planning is currently underway to expand the registry and incorporate information other data sources. In addition, NLCHI is exploring options to use the registry to improve recruitment to disease screening and supports and to integrate the registry with the provincial Electronic Health Record and Electronic Medical Record.

CHRSP and Mental Health: Decision Support Methods and Results

Pablo Navarro, S. Mackey, A. Letto, M. Ryan, S. Bornstein

Context: Health system leaders in the Newfoundland and Labrador (NL) required appropriate research-based knowledge synthesis (KS) products to inform mental health policy decision making. Objective: Our objectives were to assist decision makers to identify and prioritize topics of interest and to effectively support them with a range of relevant and meaningful KS products responsive to their needs. Design: The Contextualized Health Research Synthesis Program (CHRSP) is an integrated knowledge transfer (iKT) initiative between MUN researchers and the health system. CHRSP engages decision makers throughout the research process to support evidence informed health policymaking (EIHP). This presentation will review three CHRSP methodologies: 1) Evidence in Context (EiC): exhaustive and fully contextualized K; 2) Rapid Evidence Report (RER): expedited KS and selected contextualization; 3) Snapshot Report: jurisdictional scans. Participants: Project teams varied according to methodology. Every project included a Deputy Minister or Regional Health Authority CEO. EiCs and RERs included a national subject matter expert. EiCs also include health system decision makers, local experts, frontline

workers and stakeholders. Intervention/Instrument: The EiC project studied non-pharmacological interventions to reduce agitation and aggression in long-term care (LTC) residents with dementia (2014, update 2018). The RER project looked at the built environment of mental health units in acute-care facilities (2017). The Snapshot Report surveyed delivery models for mental health and addiction services in rural/remote communities in Canada. Outcome measures: Various Results: The EiC project and update identified 25 new eligible systematic reviews. Music Therapy, Staff Training and interventions designed specifically to reduce anti-psychotics had the strongest bodies of evidence. Contextual factors mainly support these interventions in NL. A range of other interventions are being investigated. The RER report on mental health units focused on architectural and design features. This is a new field of research. Evidence was suggestive rather than conclusive, including the need to move away from "asylum-styled" architecture. The Snapshot Report scanned rural psychiatry services implemented in jurisdictions outside NL. Our findings included: use of technology; primary caregiver supports; improving coordination; traveling clinics; and increasing focus on Northern regions. Conclusion: CHRSP provides a diversified set of KS products, matches decision maker needs to methodology, and contextualizes evidence to support decision makers in EIHP.

Community Empowerment and Collaboration in PHC: The Botwood Experience

Karen Butler, Cameron Campbell,Terri Jean Murray, Sarah Randell, Gina Sheppard

Context: With an aging population, growing health care costs and the increasing burden of chronic disease, Newfoundland and Labrador is focused on improving population health through the reformation of Primary Health Care (PHC). The community of Botwood, in Central Newfoundland, identified a gap in access to Mental Health and Addictions services. A team was facilitated to redesign service delivery from a PHC frame, improving access and quality of care for patients. Objective: To improve PHC access through health system transformation: changing health care system structures to meet the PHC needs of individuals, families and communities within their cultural context; provision of care through collaboration in interprofessional teams; harness the power of new technologies to improve quality of care, communication, team collaboration, and service delivery. Target audience: PHC providers, health administrators and policy decision makers Description: Improving PHC services and supports is part of broader efforts to redesign the way we offer health care services in Newfoundland and Labrador. A renewed focus on collaboration and community–based primary health care services and supports is critical to the overall realignment of health care services. A core piece of this strategy involves the creation of patient-centered, community based interprofessional Quality Improvement (QI) teams who are empowered to redesign current health care service delivery models through the facilitation of community stakeholders (including patients and families), physicians and health providers. This presentation will highlight how a team comprised of patients, community leaders, physicians, health care providers and leaders in a rural NL community identified gaps in health service and were facilitated to redesign and implement a health care service delivery model that is reducing stigma, improving patient access and quality of care for mental health and addiction services with a Primary Health Care lens Evaluation: Evaluation of ongoing PHC projects is being led by NLCHI in partnership with the Regional Health Authority and Health and Community Services. Conclusion: The PHC team in Botwood provides a walk-in counselling service one day per week to the residents of the area. They were the first in the province to provide Mental Health and Addictions counselling through Telehealth. The team is continuing to expand their outreach through community networks and partnerships.

Coordinated Access for Youth at Risk for or Experiencing Homelessness in NL

Joshua Smee, Ally Jamieson

Context: At-risk youth engage with a wide range of support systems and service providers. In the current paradigm, seeking support includes the risk of re-traumatization through re-telling difficult stories, as well as the risk of them falling through the cracks as they move between systems and locations. CFY has been engaging with youth, service providers, and leaders from across Canada to gather perspectives on potential solutions. Objective: To develop a model for province-wide coordinated access and integrated services for youth that integrates housing, mental health, addictions services, social services, and any other supports provided by both community and government. Target audience: Housing and social service organizations (both community and government), at-risk and homeless youth, and researchers on housing, homelessness, mental health, addictions and social determinants of health. Description: A Coordinated Access for Youth process will enable the integration of housing and social service supports for at-risk and homeless youth by bringing together the different agencies that serve them, facilitating the prioritization of access to scarce resources, and ensuring that "every door is the right door". Engaging the Newfoundland and Labrador Housing Corporation, the Department of Children Seniors and Social Development, and the Department of Health and Community Services as co-conveners of this process will ensure that improved housing options for youth is integrated as a core element, alongside critical supports in the arenas of health and social services. This includes co-locating, sharing information, and collaborating on prioritization of access to help create a multi-level Coordinated Access model to recognize the diverse ways youth move through physical locations and developmental stages, with a concerted move away from age-based access. Evaluation: Implementing this process should have a range of positive outcomes for youth, as well as for service providers who will be able to deliver their services more efficiently. Both community and government have developed (or are developing) systems that capture this data. Conclusion: Extensive public engagement by CFY has shaped this vision for integrated and coordinated services. This model also supports outcomes identified by Premier's Task Force on Educational Outcomes, the Towards Recovery recommendations, and can serve as a foundation to the upcoming Housing and Homelessness Plan.

Developing Effective Teamwork in Health and Social Care in Newfoundland and Labrador: A Provincial Plan

Chelsey McPhee, Olga Heath, Beulah Jesso, Adam Reid

Context: Effective teamwork leads to safer, higher quality patient care and healthcare system efficiencies. Healthcare professionals need to be trained across the continuum of professional development how to collaborate effectively through interprofessional education (IPE). This presentation showcases the recently completed provincial IPE curriculum blueprint and evaluation framework. Objective: 1. Develop partnerships and conduct IPE needs/capacity assessments with educational institutions, Regional Health Authorities, and community agencies; 2. Develop pre- and post-licensure IPE curriculum and evaluation plans that meet the needs and utilize the identified capacity of partners Design: This study used a concurrent mixed methods approach that included quantitative survey data and targeted qualitative interviews. Participants: Participants consisted of 152 senior administrators from key stakeholder groups relevant to the training and employment of health and social care professionals in NL: postsecondary institutions, RHAs, Government of NL, community organizations, and professional and accrediting bodies. Intervention/Instrument: Surveys and interview questions were specifically designed to obtain key information and perspectives of identified participant groups. Survey Monkey was used for survey design and administration; Microsoft Excel was used for qualitative coding; SPSS was used for other data analysis. Outcome measures: Outcome measures include the completed Provincial IPE Curriculum Blueprint and Evaluation Framework, dissemination of the provincial plan to key stakeholders and confirmation that the framework meets stakeholder needs. Results: The needs assessment identified a demand for enhanced IPE in post-classroom training

and more meaningful in-classroom IPE. Referencing best-practices in the literature, other IPE programs across Canada, and stakeholder identified opportunities and needs, a provincial IPE curriculum and evaluation framework was developed. A report outlining recommendations for the future of IPE in NL will be circulated to stakeholders in August 2018. Conclusion: This project identified opportunities and demand for expansion of IPE in NL. Implementation of the project recommendations will impact health and social care professional training across the continuum of professional development in the province enhancing the delivery of health care through improving team functioning.

Development of a questionnaire for a discrete choice experiment: a case study on osteoarthritis medications

Bethan Copsey, James Buchanan, Raymond Fitzpatrick, Sarah E Lamb, Susan J Dutton, Jonathan A Cook

Context: Discrete choice experiments (DCEs) can be used to quantify patients' relative preferences for treatment benefit and risks. The number of treatment characteristics included in DCEs should be limited to a reasonable number. This will encourage participants to consider all of the characteristics and reduce risk of participant fatigue, which can impede the accuracy of the results. Objective: To describe the development of a questionnaire for a DCE to explore patient preferences for osteoarthritis medication. Design: Questionnaire development for a DCE. Participants: Adults living with osteoarthritis residing in the United Kingdom; 10 patient representatives, who provided input into questionnaire development, and 20 pilot study participants. Intervention/Instrument: A literature review was completed to identify prior patient preference studies in osteoarthritis patients. Treatment characteristics were extracted and categorised. For the characteristics relevant to pharmacological treatments, rating and ranking exercises were completed by patient representatives. This information was combined with existing literature to produce a short-list of characteristics to be used in the final questionnaire. The levels of each characteristic were chosen based on clinical relevance, informed by systematic reviews of osteoarthritis studies. Outcome measures: The main outcome of the development process was the finalised questionnaire, including the different characteristics of hypothetical medications. Other key outcomes included the levels of the different characteristics, the number of medication options and the number of choice tasks. Results: In the resulting questionnaire, the medications were described in terms of 6 characteristics: the effect of the treatment on the patient's (i) pain, (ii) stiffness and (iii) physical function, (iv) the duration of the treatment effect, and the risk of (v) heart attack, and (vi) stomach ulcer bleeding. The proposed presentation will provide further detail on the selection process of the characteristics, including the results of the literature review and patient rating and ranking exercise. Conclusion: The finalised questionnaire will be used in a DCE to explore the medication preferences of people living with osteoarthritis. The DCE will quantify the relative importance of the different treatment benefit and risks. The results could be used to inform patient decision-making in clinical practice and prioritise areas for future research.

Embarrassment of Riches: Youth Mental Health and Poverty

Kate Tilleczek, Brandi Bell, Sarah Gallant

Context: Poverty in young lives affects mental health outcomes over time and inflicts multiple risks on young people's care-seeking journeys. Hearing the stories of those who have accessed the system while living in poverty can highlight the issues within the system's functioning and how they translate to the lives of young people and their families. Objective: To explore Atlantic Canadian youth and parent experiences in seeking mental health care for the youth, and to understand the barriers and facilitators that are encountered when seeking care while living in poverty. Design: Qualitative semi-structured interviews and patient journey mapping methods were used to guide data collection and analysis. Participants: Participants in this study were 11 youth and 11 parents who had accessed

their provincial mental health system, where the youth obtained one or more mental health diagnoses. Their low socioeconomic status was self-reported on a face sheet. Participants were selected from the Atlantic Canadian Children's Effective Service Strategies in Mental Health (ACCESS-MH) project. Intervention/Instrument: N/A Outcome measures: The interview transcripts and journey maps were analyzed using narrative and thematic analysis. Results: The four main themes were cost of care, "not sick enough", loneliness and social exclusion, and family challenges. The cost of care presented many barriers when parents could not afford private care and their child would be placed on long wait lists for publically available services. The youth emphasized that they often felt they were "not sick enough" to be seeking care until they reached a crisis point. Loneliness and social exclusion were also significant barriers, as were family challenges such as lack of resources and family history of mental health and addiction issues. The main facilitator was receiving help from other people outside of the family, such as friends, other families and school staff who guided them in seeking treatment and support. Conclusion: This research highlights the barriers and facilitators in youth and parent journeys when seeking mental health care. By making the Atlantic Canadian mental health system more equitable and fair through free services and extra supports for those living in poverty, all youth could have equal chances to flourish as they grow.

Engaging At-Risk Youth - The Essential Voices in Research Choices

Angela Power, Janine Elliott, Ally Jamieson, Fern Brunger

Context: At-risk and homeless youth are a highly sought population for research. As researchers respond to public health concerns, Choices for Youth (CFY) receives increasing requests for access to service users. On the surface, requirements of research ethics are being met: individual consent is sought, research ethics board (REB) approval is obtained, and researchers receive organizational permission to access service users. However, missing is oversight of the cumulative effects of the burgeoning amounts of research being conducted, including associated potential risks to individual clients and collective effects of research fatigue to the organization. CFY practitioners trust researchers and REBs to consider the range of potential harms to clients. But researchers and REBs do not have the insider knowledge to appreciate some harms. CFY practitioners do not have the training to identify "hidden" harms and, moreover, there are multiple motivations for ensuring research is conducted unhindered (i.e., risks unexamined). With lack of multilateral oversight, breaches in ethics may occur and youth are at elevated risk of harm. MUN bioethicists and CFY have partnered to develop a policy framework to enhance safeguards for at-risk and homeless youth. Objective: To develop a community collaborative research ethics model for conducting research with at-risk and homeless youth. Target audience: This ethics model will benefit: youth at-risk for or experiencing homelessness, academic and community-based researchers, research ethics boards, bioethicists, and community health & mental health service providers. Description: This client-driven research ethics model will help to ensure research is conducted from an inclusive lens, to minimize risks to at-risk and homeless youth while upholding ethical standards and best practices that promote research. Evaluation: Focus groups with youth, practitioners and researchers will be conducted post-development to obtain feedback and evaluate the effectiveness of the framework and guidelines. Conclusion: Dissemination of this participatory research ethics model will shape policies to extend safeguards for youth research participants and advance ethics discourse regarding research with vulnerable populations in community settings.

Evaluating health service utilization among children and youth with mental health disorders in Newfoundland Labrador

Heather Conway, Rick Audas

Context: An estimated 1.2 million children and youth in Canada are affected by mental illness—yet, less than 20 per cent will receive appropriate treatment. Atlantic Canada Children's Effective Service Strategies in Mental Health (ACCESS-MH) is a 5 year, CIHR funded project that explores barriers and facilitators in access to child and youth mental health services in the region. Objective: This study aims to leverage big data to outline the geographic, temporal and individual level antecedents and correlates of health service utilization among this vulnerable group in Newfoundland Labrador. Design: Data from the NLCHI Longitudinal Pediatric Research Composite Database (LPRD) were modelled using a retrospective, population-based and multi-staged approach. Participants: 1452 cases (<19 years) identified according to the ICD-10 codes for mood disorders (including depression and bipolar disorder), eating disorders (anorexia and bulimia nervosa), neurotic, stress-related and somatoform disorders (including phobias and anxiety substance use disorders) across 5 Regional Health Authorities who accessed a >1 health service between January 1, 2001 and March 31, 2014, inclusive were included in the analysis. Intervention/ Instrument: The NLCHI LPRD links data from the NLCHI Live Birth System, the NLCHI Clinical Database Management System, and the MCP Fee-for-Service Physician Claims Database provided by the Department of Health and Community Services. The NLCHI LPRD contains, information related to live birth and maternal delivery events, administrative and clinical information collected at hospitals when patients are discharged from inpatient and surgical day care services, and records of visits made to physicians in NL that are paid on a fee-for-service basis. These data are used primarily for research and to provide aggregate statistical information. Outcome measures: We will produce descriptive statistics to outline the count and rates of health service use among children and youth with mental health conditions in Newfoundland Labrador by client characteristic; build regression models to represent 'low', 'medium' and 'high' health care consumers; and conduct a comparison along socioeconomic dimensions using birth event data in addition to census linked postal code derived metrics for socioeconomic status. Results: We posit that in generating models to identify the predictors and define trends in health service utilization among this group, that we can identify potential long-term outcomes associated with health care services in the province and comment on the health system's performance to date in managing these cases. Conclusion: In addressing many of the limitations of traditional survey methods, the findings generated from this study have the potential to inform future health care reform efforts (e.g., increased investments in mental health services) that will address the unique needs of a population that is too often underfunded and overlooked.

Expanding Telehealth in Newfoundland and Labrador

Ashley Dinn, Ashley Dinn, Shannon Perry

Context: Telehealth enables the delivery of equitable health services to patients in Newfoundland and Labrador regardless of location. Based on growing health care demands, the NL Telehealth Program's 2018/2019 program expansion will include use of Telehealth into primary health care sites, physician private practise and into the patient's home. Objective: This presentation will provide an overview of the current Provincial Telehealth expansion project. Project objectives include improving access to current services, expanding services into primary health care, physician private practise and into the patient's home. Target audience: The target audience is health care providers, support staff or residents of the province that have an interest in telehealth as a method to delivering health care. Description: Telehealth enables the delivery of equitable health services to patients in Newfoundland and Labrador regardless of location. Telehealth has become an integral part of health care delivery in our Province. The expansion of the provincial telehealth program supports priorities outlined as part of government's commitment to primary health care and chronic disease management. Priorities include expansion of Telehealth into physician practises and

into the patient's home. It will also support the NL Regional Health Authorities priorities, with expansions into areas such as mental health and additions, long term care, emergency room services and rural health expansions to address service gaps. The provincial infrastructure will streamline services offered across the province with consistent and reliable technology. The infrastructure will be highly available and scalable to support growth within the province. The project supports breaking down barriers that exist in primary health care to enhance continuity of care and increased access for the residents of the province. Evaluation: The project will be evaluated for the patient, provider and Telehealth support staff based upon level of service satisfaction. Conclusion: This presentation will discuss the scope of the expansion project and the opportunities for primary health care.

Exploring Coping Strategies among Food Insecure University Students

Lisa Blundell, Maria Mathews, Barbara Roebothan

Context: Current research indicates prevalence of post-secondary student food insecurity is much higher than within the corresponding general populations. Little is known about how students cope with food insecurity. Objective: Our study examined how Memorial University of Newfoundland (MUN) students cope with food insecurity. We explored how coping strategies differ by student groups. We also investigated students' knowledge of university resources, such as the campus food bank. Design: Data were collected by an online survey distributed to returning MUN students registered at a St. John's campus in Newfoundland. We recruited respondents through e-mails, posters, and social media. Participants: Eligible students included those who attended a MUN campus in St. John's during the academic year of September 2015 to April 2016, were enrolled at MUN as of September 2016, and experienced food insecurity. Post graduate medical students were excluded. A total of 357 respondents met our inclusion criteria. Intervention/Instrument: Statistic Canada's Canadian Household Food Security Survey Module was used to assess food security. We collected demographic information and asked students to identify strategies used when they did not have enough money for food. Outcome measures: The primary outcome measures were coping strategies used by students when they were unable to afford food. Logistic regression was used to compare coping strategies used by different student groups. Results: One hundred and seventy-five (49.0%) students were aware of MUN's campus food bank, but only 36 (10.1%) of students used it. International students reported the highest use of the campus food bank, being 8.22 (95% CI = 3.72 – 18.15) times more likely to use it than NL students. Common coping strategies used by students included using a credit card to purchase food (60.8%), receiving money or food from family or friends (45.9%), and seeking employment or working more hours (44.3%). Conclusion: Our findings indicate coping strategies used by food insecure university students vary by student group, and campus resources may not be reaching the population they aim to serve. Further research should determine resources and programming that would better support food insecure students.

Exploring Opportunities to Optimize the Organization of Primary Health Care Services for Individuals with Chronic Diseases Across Newfoundland and Labrador

Richard Buote, Julia Lukewich, Shabnam Asghari, Kris Aubrey-Bassler, John Knight

Context: Across Canada, the prevalence and cost of chronic diseases is growing. In Newfoundland and Labrador (NL), the prevalence of chronic diseases is above the national average. Objective: This study aims to improve the understanding of primary health care organization, specifically with respect to chronic disease care, to inform health care system reform initiatives. Design: Secondary analysis of a cross-sectional survey. Participants: Primary health care sites across NL (n=154) as identified by members of each respective regional health authority. Intervention/Instrument: An electronic survey was administered to site leads to determine programs and services offered. This included location of site, communities serviced, disease-specific chronic disease prevention programming, types of routine primary care, allied health prevention and promotion, chronic disease prevention and management services,

and whether team-based care was offered. Mode of service delivery was identified (i.e., delivered by on-site staff, visiting health care provider, or telehealth) along with details of team-based care provided. Outcome measures: Programs and services offered at primary health care sites across NL. Results: Completed surveys were returned by 96% (n=148) of sites. Family physician services were available at 66% of sites and nurse practitioner services at 51%. Less than a third (32%) of sites offered 24/7 primary care services. If a site offered a health care service, most often it was through an on-site staff member (39-98%) followed by visiting health care professionals (2.0-63%), while few used telehealth (<15%). Of services typically offered by allied health providers, healthy eating (77%), tobacco cessation (74%), and blood pressure (67%) were most frequently available. Targeted prevention and management programming was most commonly available for diabetes (46%), autism (27%), and hypertension (25%). Use of team-based care was reported by 41% of sites, most often for diabetes (48%), mental health (24%), and primary care (18%). Conclusion: There is considerable variety of primary health care services available across NL that have yet to be optimized. Access to 24/7 care and utilization of telehealth to deliver primary health care services is limited. Future research should examine how availability of these programs and services affects those with chronic disease in NL.

HEALTHeNL: Do you have access to the province's Electronic Health Record?

Raleen Murphy

Context: When members of a health care team have access to comprehensive patient information at the point of care, they can make informed decisions about the patients they treat. Objective: To inform health care professionals about the province's electronic health record, how to gain access and how to use it in practice Target audience: Authorized health care professionals: physicians, nurses (LPN, RN, NP), physiotherapists, dietitians, social workers, occupational therapists, speech language pathologists, dentists, psychologists, counsellors, administrators, etc.) Description: Timely access to accurate patient information can lead to better patient care and improved outcomes. HEALTheNL connects authorized health care providers to important patient information like clinical documents, laboratory results, diagnostic imaging, pharmacy medication records and immunizations. Evaluation: NA Conclusion: This presentation will provide a demonstration of HEALTHeNL and educate health care professionals about the clinical value of using HEALTHeNL in their practice.

High School Sexual Health Program Eastern Health

Donna Dawe, Anita Forward

Context: High school students across the eastern region of Newfoundland and Labrador have limited access to sexual health education and clinical services. Dedicated clinical services are available in St. John's only. No youth friendly walk in services are available anywhere in the region. Lack of access to sexual health education and services is contributing to poor health outcomes such as, sexually transmitted infections (STIs), teen pregnancy, and early onset of sexual activity. As schools are the only formal educational institution to have meaningful contact with nearly every young person, they provide a unique environment to offer comprehensive school-based sexual health education and services. As a result, Eastern Health has partnered with Newfoundland and Labrador English School District (NLESD) to offer a sexual health program to high school students in eastern region. Objective: To improve the sexual health and well-being of high school students in the eastern region of Newfoundland and Labrador, by providing access to sexual health education and services within the school setting using a comprehensive school health approach. Target audience: High school students Description: The program is provided by a Community Health Nurse who visits the school on a biweekly basis and consults with a Nurse Practitioner as required. The following services are offered: sexual health education; birth control counseling and prescription; STIs testing, counseling, treatment and follow up; pregnancy testing and options counselling; and other referrals as necessary.

Evaluation: Clinic statistics including the type of clinical services provided and referrals made are collected on a monthly basis. Using the internationally recognized comprehensive school health framework, data is collected across four distinct but inter-related components: social and physical environment; teaching and learning; healthy school policy; and partnerships and services. In the 2017 evaluation, 85% of students indicated that if the services were not available in school they would not have accessed the services elsewhere. Conclusion: The development of this program has allowed schools and health professionals to work in comprehensive ways to address the needs of students and the school community. Relationships forged between Education and Health sectors has created a strong and equitable partnership resulting in increased access to health services for students.

Hospitalizations due to Self-Poisoning at a Canadian Paediatric Hospital

Roger Chafe, Rana Aslanov, Ome Hamud, Peter Gregory, Leigh Anne Newhook

Context: Adolescent self-harm by drug ingestion is a serious mental health issue. In NL, paediatricians suspected an increase in the number of adolescents hospitalized due to self-poisoning in the province. Objective: To evaluate the number of hospital admissions of adolescents for self-poisoning between 2008 and 2013 to determine whether there was indeed an increase in hospitalization. To examine the characteristics of these admissions to better understand this patient population. Design: A retrospective chart review study was conducted to identify cases of self-poisoning admitted to the only paediatric hospital in NL over a 6-year period. Participants: All patients between 12 and 17 years of age admitted for self-poisoning to the inpatient ward of the Janeway Children's Health and Rehabilitation Centre between January 1, 2008 and December 31, 2013. Intervention/Instrument: A data abstraction form was developed to collect patient demographic information and details about these incidences of self-poisoning. Outcome measures: Hospital admissions by year, gender, age and whether it was a patient's first admission for self-poisoning or whether they had previously been admitted, type of drug ingested. Results: A total of 156 patient admissions were identified; 97 (62.2%) first time admissions and 59 (37.8%) recurrent admissions. The number of admissions for self-poisoning increased over the study period from 2.1% of total hospital admissions in 2008 to 6.5% in 2013. Mean (SD) age at the time of admission was 15.4 years, 122 patients (78.2%) were female and 86.5% had at least 1 previous mental health diagnosis. The most common drugs ingested were analgesics (38.0%) and antidepressants (32.2%), with 73 patients (48.7%) ingesting multiple drugs. Conclusion: The study contributes to the growing recognition of adolescent self-poisoning as a serious paediatric mental health issue. It also confirmed that an increase in adolescent hospitalizations due to self-poisoning has occurred in NL. Further research is warranted to identify effective prevention strategies for this serious problem.

How collaboration helped redesign mental health and addictions services on the Burin Peninsula.

Evelyn Tilley, Diane Dunphy

Context: Mental Health and Addictions Services were redesigned on the Burin Peninsula using a Primary Health Care Frame. Objective: Improve access to Mental Health and Addictions Services Target audience: Health care providers, researchers, general public. Description: Using a process improvement initiative, and working in collaboration with a stakeholder group, mental health and Addictions Services were redesigned to be recovery focused and accessible to people when they need it. People can now access services without needing referrals, or lengthy assessments, with no waiting time. Evaluation: All clients are provided with a survey to complete after their visit. To date the feedback has been very positive. Further qualitative analysis is being planned in collaboration with NLCHI Conclusion: This presentation will bring a refreshing perspective to implementing change, and will show how change is not only possible, but very probable.

Improving Outcomes for Youth with Type 1 Diabetes in Transition to Adult Care by Strengthening the Engagement with Primary Care

Roger Chafe

Context: Young adults with type 1 diabetes are at increased risk for acute complications during their transition from pediatric to adult care. While there is considerable variation in how transition care is structured, there is little evidence about the impact that the type of care patients receive during their transition has on adverse outcomes in early adulthood. One issue that has not been sufficiently explored is the impact of greater engagement with primary care physicians on outcomes. Objective: To explore the impact of different models of care on outcomes for patients with type 1 diabetes, including the impact of having access to a family physician. To engage with patients and providers to determine their perspective on how primary care physicians could play a larger role in providing care to young adults with type 1 diabetes. Design: Mixed methods: Administrative data and qualitative research. Participants: Young adults with diagnosed T1D before 18 years of age and health care providers in NL. A cohort of patients with type 1 diabetes in Ontario. Intervention/Instrument: Data abstract sheet, qualitative interview guide. Outcome measures: Time to death or ketoacidosis in early adulthood. Review of themes of qualitative interview data. Results: 241 (9.5%) of patients in the Ontario cohort had no primary care visits during their transition, and this was associated with an increased risk of diabetic ketoacidosis or death in early adulthood (adjusted hazard ratio (HR) 1.46 (95% CI 1.04 to 2.03). Recruitment for the qualitative interviews was difficult. Some patients supported greater participation by primary role physicians in transition, but also recognized there are difficulties in achieving this in practice. Conclusion: A high proportion of youth with diabetes have insufficient care during transition age and this is associated with higher risk of important adverse outcomes in early adulthood. Ensuring primary care involvement during transition may be a strategy to reduce morbidity.

Is there a bias or conflict of interest in breast screening recommendations?

Anne Kearney

Context: Breast cancer is a major cause of morbidity and mortality among women. There is great controversy regarding effective screening modalities. At present, mammography screening is widely recommended for women 50-69 years of age while clinical breast examination (CBE) and breast self examination (BSE) are not recommended for women at any age. Objective: The goal of breast screening is to reduce mortality associated with breast cancer. Target audience: All adult women. Description: A critical appraisal of evidence, including systematic reviews and large population-based studies, demonstrate that recommendations of leading organizations such as the Canadian Task Force on Preventive Health Care (CTFPHC) and the United States Preventive Services Task Force (USPSTF) are not based on current evidence. For mammography screening, there is significant good quality evidence of harm and minimal evidence of benefit and yet it is widely recommended for women 50-69 years of age. On the other hand, evidence for CBE and BSE can be considered of low or poor quality - however, these modalities are no longer recommended for women of any age. A review of the literature demonstrates that current recommendations may be influenced by the authors of guideline development panels, systematic reviews, and critical appraisal of systematic reviews who have professional, financial, or intellectual interests in breast screening. In addition, a recent review of the websites of all breast screening programs in Canada demonstrated that no website contained balanced information regarding breast screening that would enable women to make an informed decision. Evaluation: There appears to be a conflict of interest in current recommendations for breast screening from guideline development panels, systematic reviews, critical appraisal of systematic reviews, and material presented by breast screening programs in Canada. Conclusion: It is important that all journals, conferences, and expert panels require a declaration of conflict of interest from all authors, contributors, and funder/sponsors and that the audience critically appraise the presentation of evidence and resulting recommendations for potential conflict of interest, in

breast screening and other health-related recommendations. It is also important to include more doctoral-prepared non-clinicians (or clinicians without conflicts of interest) in expert panels charged with making population-based recommendations.

Key Assets NL and our Family-Based Care Model

Kristen Hynes, Crystal Wells

Context: Key Assets, the children's service provider was established in 2007 and currently operates across 4 continents. In Newfoundland and Labrador Key Assets works primarily with Children's Seniors and Social Development (CSSD) to provide therapeutic interventions and care to young people and families with complex needs. Our residential programs are comprised of Staffed Individual Living Arrangements, and Family Based Care. Objective: In this province, the Department of Children, Seniors and Social Development (CSSD) works collaboratively with outside agencies to meet the needs of children and youth in care. Target audience: At Key Assets, we provide care mainly for children and youth who have complex needs and behaviours, or are part of a large sibling group, and are generally more difficult to place in the regular foster care system. Description: Our purpose is to achieve positive and lasting outcomes for children, families, communities, and carers, through positively impacting their lives by providing quality services and expert advice designed to offer support, build confidence; improve skills, develop relationships and strengthen resilience. Currently, at Key Assets we conduct our own, in house recruitment and assessments of all potential Family Based Carers using the same framework as CSSD. Once approved, we use a collaborative approach to ensure children and youth referred to Key Assets for residential care are matched appropriately with Carers who have the right set of skills and abilities to meet their needs. We develop comprehensive transition plans that include maintaining existing connections for the children and youth, as well as developing support plans for the family which contributes to the overall success of Family Based Care placements. Other elements of Family Based Care that lends to its success include, but is not limited to ongoing training, therapeutic services, parenting and support groups, and access to a qualified support person 24 hours per day. Evaluation: From the beginning of Family Based Care in NL, individual evaluations have been ongoing. Due to our rapid growth, a need has been identified for more regular and formalized evaluations of our programs, including our Family Based Care Model. Conclusion: A position has been created to focus on evaluations and quality assurance moving forward.

Laboratory Support of Primary Health Care: A programmatic perspective

Laura Gilbert

Context: The Public Health and Microbiology Laboratory (PHML), Eastern Health (EH) is an integral component of Newfoundland and Labrador's (NL) public health and primary health care system. Through serological testing, environmental health monitoring, and communicable disease surveillance and outbreak investigation; the laboratory fills a relatively unfamiliar role, one that goes beyond acute and clinical health care. Objective: Linked to all sectors of public health, PHML provides early detection of health risks associated with infectious agents, compiles data in support of outbreak investigations, identifies causative agents of infections and diseases to aid in treatment and prevention, and offers the science and resources needed to promote and protect the health of our communities. Target audience: PHML provides clinical and public health services to the province of NL; including health care providers, regional municipalities, and the public. Description: Our unique role spanning clinical and primary health care worlds provides a multifaceted view of the health system in NL. Serology performs antibody and antigen testing for microbial agents to identify acute infection, prior exposures to disease-causing organisms, and to assess protective immunity. Environmental plays a significant role in assuring safe and clean drinking water provincially by providing bacteriological water quality testing. Sterility testing services on local dairy products, is performed

as requested. Investigative and organizational support is offered in cases of suspected communicable disease and food-borne diseases via participation in real-time national surveillance and tracking of notifiable diseases. PHML performs communicable disease, environmental, and antimicrobial resistance surveillance, and data analysis for policy development and guidelines. PHML is a voice at committees, working- and advisory groups, and standards development; ensuring compliance and best practice. Evaluation: NA Conclusion: PHML continues to build local capacity and expertise in laboratory methods of surveillance and molecular epidemiological investigations creating new opportunities to aid in disease control and prevention. Through careful review and evidence-based decision making, PHML strives to improve the overall lab services and ultimately improve public health. We optimistically look to the future and our continued role in protecting and promoting the health and wellbeing of NL.

Mental Health Care-Seeking Experiences of Mothers in Atlantic Canada

Sarah Gallant, Kate Tilleczek, Brandi Bell

Context: Understanding the mental health care-seeking experiences of parents and caregivers is essential to improving services and care for young people with mental health challenges. Participants were selected from the larger Atlantic Canadian Children's Effective Service Strategies in Mental Health (ACCESS-MH) project, a 5-year CIHR-funded project examining the child and youth mental health system in the Atlantic Canadian provinces Objective: To explore Atlantic Canadian mothers' experiences seeking mental health care and support for their child's mental health challenges, to illustrate the power dynamics that mothers and their children face in the mental health system while seeking care, and to understand how support for parents and caregivers of youth with mental health challenges can be improved. Design: Qualitative semi-structured interviews and visual patient journey mapping methods guided data collection and analysis to assist in understanding participants' experiences in the mental health system while attempting to seek diagnoses, treatment, and support. Participants: The mental health care-seeking journeys were depicted through the narratives of seven mothers whose eight daughters accessed their provincial mental health system and obtained various mental health diagnoses including depression and anxiety. Intervention/Instrument: Not applicable. Outcome measures: The interview transcripts and journey maps were analyzed using narrative and thematic analysis. Results: The overarching themes in the care-seeking journeys outlined major challenges and facilitators that participants experienced. Participants' narratives and visual maps displayed fragmented journeys and exemplified power struggles in their interactions with health service providers. Examples of challenges included receiving blame, being ignored, and lacking support and guidance. Examples of facilitators included feeling empowered by questioning professional treatment, advocating, and resisting blame. Participants also discussed their main recommendations for improving mental health care-seeking journeys in Atlantic Canada. Conclusion: Experiences of mental health care-seeking could be improved by enhancing the continuity and empathy in mental health care and treatment, increasing collaborative team-based supports within the mental health system and between systems related to mental health, as well as strategizing quality mental health education and accessible service navigation resources for parents and caregivers of young people.

Optimal Decisions for Mental Health Services for Youth when Patients Switching to Emergency Department

Zainab Almukhtar, Michael Zhang

Context: A portion of youth who do not get timely access, tend to seek other interventions that might provide better access, or go to the Emergency Department (ED) for mental health treatment (Grupp-Phelan et al. 2009). The use of ED for mental health treatment increases the crowding and effects the ED operation, increases the cost of the treatment which reflects on the system's cost (Vermeulen et al. 2015). Objective: By applying mathematical methods we propose a strategy to achieve the combined goal of improving the outcomes of the mental health intervention

system and minimizing the total cost simultaneously. We look to improve the access and enhance quality related factors like patient directed services, and proper technology adaptation by the allocation of resources when, where and how they are needed. We focus on critical issues related to behavioural and system factors like the high use of ED by youth with mental health issues, and the burdens that youth and families undergo when searching for proper interventions. Design: We look at the interactive relation between the delivery of interventions and the ED use: we suggest methods to reduce the use of ED by youth with mental health by improving the interventions. Likewise, we suggest improved strategies to direct the youth with mental health problems from the ED to the needed care, after the primary treatment. Both will improve the flow, reduce ED crowding, cost, and provide better outcomes. Participants: We put forward a plan that would enhance the delivery of the mental health system, by taking a holistic approach and understanding system interrelatedness. Our plan in the allocation of resources directs them to needed areas and prevents unplanned wastages, improving the performance and minimizing the cost of the system. Important existing issues in Nova Scotia that degrade the health outcomes and increase the cost of the system like the use of ED by youth are managed. Intervention/Instrument: N/A Outcome measures: We investigate resource allocation to education and awareness efforts and towards more personalization in the intervention services. We pay special attention to campus mental health and issue in services for rural areas. Results: In the study, we treat the mental health system in a holistic manner, understanding integrations between system entities and how malfunction in one affects the other like the relation between shortage in the interventions and ED use, and how the slow discharge, and mis-coordination from ED effect crowding and patient condition. Conclusion: We look to provide a comprehensive framework to identify gaps in the mental health system, and explore the interactions, causers and influences of those gaps. Mainly we look to suggest holistic improvements in the Nova Scotians Mental Health Services to Youth that for decision and policy makers and service planners.

Patient preferences among individuals with type 2 diabetes for attributes of diabetes medications: A Discrete Choice Experiment

Jennifer Donnan, Jennifer Donnan, Carlo A. Marra, Kris Aubrey-Bassler, Karissa Johnston, Mehdi Najafzadeh, Michelle Swab, Hai Nguyen, John-Michael Gamble

Context: The use of metformin as first line therapy for the management of type 2 diabetes (T2D) is well established, however the choice of second line therapy is less clear. The new Diabetes Canada guidelines suggests taking patient specific characteristics as well as patient preferences into consideration when prescribing. Objective: To quantify patient preferences towards key attributes of diabetes therapies, to identify which attributes have the greatest influence on choice. Design: A discrete choice experiment. Participants: Adults 18 years of age or older, living in Canada, with a diagnosis of T2D. Intervention/Instrument: Eight relevant attributes (cost, efficacy, risk of macrovascular events, microvascular events, minor side-effects, severe hypoglycemia, serious side-effects, and life expectancy) were identified using a literature review, focus groups and interviews with patients and clinicians. Respondents completed 12 choice tasks, and 2 dominant choice tasks. A multinomial logit model was used to estimate the weights of each attribute. Willingness-to-pay was used to assess trade-offs between attributes. Outcome measures: Relative preference weights for attributes of diabetes medications. Results: A total of 513 individuals completed the survey. The average age was 59 years (SD=12), 59% were male, 55% had tried two or more oral medications, and 62% had diabetes for at least 6 years. All attributes were found to significantly influence choice. On average patients were willing-to-pay a monthly cost for their therapy of: $135 to achieve three additional years of life; $48 and $36 for a 20% reduction in their risk of macrovascular and microvascular events respectively; $37 for a 1% drop in HbA1C; $32 for a 50% less risk of severe hypoglycemia over 10 years; $28 for a 50% less risk of

a minor side effect; and $19 for a 50% less risk of rare but serious side effect over 10 years. Conclusion: All eight examined attributes were shown to significantly influence choice with cost and life expectancy carrying the most weight, and serious and minor side effects carrying the least weight.

Primary care provider referral patterns in New Brunswick: an in-depth analysis and comparison of psychiatric wait times to other medical specialties

Emma Boulay, Michael Zhang

Context: The duration of time a patient waits from when a referral is made by a primary care provider (PCP) to the specialist visit, particularly in psychiatric wait times, is poorly understood in New Brunswick Objective: To calculate and compare the length of wait for psychiatric specialist visits using data from primary care clinics across New Brunswick to other medical specialties Design: A retrospective chart audit of seven primary care clinics across New Brunswick. Participants: 100 charts were assessed per participating clinic. Intervention/Instrument: A chart audit of clinics' electronic medical records and paper medical records. Outcome measures: Data includes the date the referral was created, characteristics of the referral, and the date of the specialist appointment, as well as healthcare resource utilization for the duration of the wait. Results: Results are still being calculated and assessed. It is hypothesized that wait time for psychiatric specialists is longer than other medical specialties, with these patients utilizing the most healthcare resources Conclusion: This is the first provincial examination of psychiatric wait times from the primary care perspective. It provides a comprehensive picture of patient access to specialists across provinces. From this, innovative interventions, such as electronic consultation (eConsult) can be implemented.

Primary Health Care in the Health Home Model

Cassie Chisholm, Cameron Campbell

Context: Newfoundland and Labrador's health system was originally designed to serve a young, growing, physically active, and primarily rural/remote population. Over time, our population has changed significantly and these changing demographics signal the need to rethink how service delivery. Evidence has shown that effective Primary Health Care (PHC), provided by high-functioning, interdisciplinary, collaborative teams can increase access, reduce wait times, improve health outcomes, and more efficiently utilize resources. In many jurisdictions throughout North America, PHC is provided under The Patient's Medical Home model, developed by the College of Family Physicians of Canada. In Newfoundland and Labrador, the Health Home is an emerging model that builds from the Patient's Medical Home, while adapting to our provincial context by placing emphasis on fully utilizing the scope of a diverse interdisciplinary team. Objective: The establishment of PHC teams working under the HH model, with integration of HHs into communities throughout the province. Target audience: Professionals working across the PHC spectrum including: nurses, physicians, pharmacists, social workers, epidemiologists, dietitians, educators, physio/occupational therapists, administrators, policy makers, and individuals whose work relates to PHC. Description: HH are interdisciplinary health care hubs designed to meet the needs of individuals and communities. Within the HH, an individual's primary care provider works collaboratively with a team of health professionals to coordinate access to a range of comprehensive services. The following key attributes support HH operations: patients attached to a most responsible provider/core team of providers; defined inter-professional team with shared responsibility for care; structured opportunities for collaboration; electronic record keeping to facilitate shared care and provide convenient care tools; analytics and evaluation; dedicated support, including protected time, for teams to engage in quality improvement efforts and a continuous quality improvement plan; active community engagement through an established Community Advisory Committee; internal governance structure reflective of the HH philosophy.

Evaluation: The HH model will be evaluated using processes and indicators endorsed by established pan-Canadian PHC evaluation efforts. Conclusion: Widespread adoption of the HH model of PHC is anticipated throughout the province with variable uptake of key attributes until maturity is established.

Rostering Patients for Continuity in Primary Health Care

Cassie Chisholm, Cameron Campbell

Context: Continuity is an important concept in Primary Health Care (PHC). Continuity refers to the ongoing relationship between a patient and their primary provider/core team of providers. Studies show continuous care leads to better outcomes and lower costs, making continuity a key objective for interdisciplinary PHC teams. In continuous relationships patients' needs are better understood, and providers are empowered to implement long-term strategies. Patients keeping a continuous relationship with a provider or team of providers are more likely to follow treatment advice and undertake self-management activities. The concept of continuity is of particular importance in PHC, where the burden of care is prevention activities throughout the lifespan and management of chronic conditions. By nature, chronic disease is long-lasting, and chronically ill patients benefit from a consistent approach. Continuity also enables teams to engage in quality improvement activities, and facilitates the application of capitation-based funding models. Objective: Facilitate and support continuity and rostering of patients within Health Homes (HH). Target audience: Professionals working across the PHC spectrum including: nurses, physicians, pharmacists, social workers, epidemiologists, dietitians, educators, physio/occupational therapists, administrators, policy makers, and individuals whose work relates to PHC. Description: Attachment is the expression/documentation of a continuous relationship, and panels and rosters are inventories of attachment for individual providers, and collaborative PHC teams, respectively. A key attribute of Newfoundland and Labrador's HH model of PHC is: attachment of every individual to a provider/ core team of providers. Maintaining patient rosters within a HH requires consistent application of formalized principles, for example: HHs agree to provide comprehensive access to care, and patients agree not to be seen elsewhere unless traveling or an emergency arises. The use of electronic record-keeping and the presence of centralized registries for monitoring rostering activity are critical to supporting continuity in PHC. Evaluation: Attachment and patient presentation outside the HH they are rostered to will be monitored as quality indicators. Conclusion: Attachment and rostering of patients to primary provider/core team of providers is a key attribute of the HH model anticipated to be adopted within PHC in Newfoundland and Labrador.

Stigma as a Barrier: A Qualitative Assessment of Stigmatized Attitudes Towards Mental Health Services in Post-Secondary Education

Roisin Walls, Michael Zhang

Context: 15% of youth aged 15 to 25 are estimated to have some form of a mental illness or disorder. Most mental illnesses and disorders are diagnosed before the age of 25, the average undergraduate age group. Objective: This study seeks to better understand stigma as a barrier for undergraduate students when seeking out mental health care services. Design: This study will use a phenomenological qualitative approach using semi-structured interviews that will follow the Theory of Planned Behavior's constructs. Participants: The participants will be the 30-50 students who experienced the phenomenon of indicating that they chose not to access readily available mental health services even though they felt that they may have a mental health problem/disorder. Interviews will be about 45 minutes each. Intervention/Instrument: A computerized database such as NVivo will be used to effectively organize the data and to improve the reliability of the data by allowing the researcher to track and organize the data. Outcome measures: Experts from post-secondary education will validate the interview guide. The guide will be piloted with two participants and will be modified to improve clarity and length of questions. The preliminary data and

conclusion will assure that the interview questions are sufficient and appropriately phrased to answer research questions and to minimize validity threats. Results: The interviews explored and informed new information about stigma towards mental health services. Behavioural attitudes, subjective norms and perceived control elements will be discussed and will serve as important variables of interest in future study. Conclusion: Potential implications of this study include evidence-based interventions that will address negative attitudes towards people with mental problems and/or disorders and to encourage the utilization of mental health services. The impact that understanding the stigma associated with mental health services will allow more individuals to feel comfortable to access the services they need. It can also potentially be used to improve outreach efforts and increase service utilization among this population.

Stop Now And Plan SNAP Effecting Change in Children's Mental Health

Leena Augimeri, Maria Gentle

Context: Research is finding robust linkages between disruptive behaviors and the lack of emotion regulation/self-control. Left untreated, it often leads to escalation of mental health issues. Early intervention and a multidisciplinary approach to treatment is key. SNAP is currently the leading psychosocial program to reduce disruptive behaviour in children 6-11 years old. Objective: SNAP, a cognitive behavioural family focused multi-component therapeutic model, is designed to help children in their middle years with serious disruptive behaviours and their families improve emotion regulation, self-control and problem-solving skills. Target audience: Professionals working with middle years (6-11) children and families. Description: SNAP helps children and families to identify their bodies' physiological responses (body cues), thoughts, feelings, and triggers (things that make them feel angry/sad/worried), so they can begin to effectively regulate arousal levels, help their bodies calm down, in an effort to come up with an effective plan. The SNAP programs offer multifaceted services including core concurrent child and parent groups and various adjunct components made available to children and families based on their level of risk and need. Components are goal oriented, skill focused, and developmentally responsive. Integrated into each component are skill acquisition training techniques (e.g., role-play, modeling, self-talk) and generalization activities (home practice assignments) to transfer learning of the SNAP strategy and parenting skills from the clinical environment to real-life settings. Evaluation: SNAP helps children and families to identify their bodies' physiological responses (body cues), thoughts, feelings, and triggers (things that make them feel angry/sad/worried), so they can begin to effectively regulate arousal levels, help their bodies calm down, in an effort to come up with an effective plan. The SNAP programs offer multifaceted services including core concurrent child and parent groups and various adjunct components made available to children and families based on their level of risk and need. Components are goal oriented, skill focused, and developmentally responsive. Integrated into each component are skill acquisition training techniques (e.g., role-play, modeling, self-talk) and generalization activities (home practice assignments) to transfer learning of the SNAP strategy and parenting skills from the clinical environment to real-life settings. Conclusion: In 2012/13, SNAP was selected by LEAP: Centre for Social Impact (Incubated by the Pecaut Centre) as their inaugural social innovation to pioneer the Venture Philanthropy model in Canada. LEAP and CDI are now engaged in a 5-year national scaling-up implementation plan, focused on reaching over 100 communities across Canada.

The Access Clinic

Katie Bennett, Kayleigh Maxwell

Context: The Access Clinic project was established following reports identifying a gap in services for women in St. John's living with complex social issues affecting both their ability to access healthcare in a traditional setting, and their care within that setting. The program has since shifted focus to include a broader range of vulnerable and marginalized populations. Objective: The Access Clinic seeks to create a space offering respectful, comprehensive

and anti-oppressive medical care, along with an opportunity for medical students to engage in anti-oppressive service learning that contributing to their growth and development as future healthcare professionals. Target audience: The Access Clinic project aims to serve individuals who feel their needs have not been met by traditional healthcare services in St. John's, including those dealing with poverty, addiction, homelessness, mental health issues, and forms of discrimination based on traits such as sexual orientation, gender identity, race, ethnicity, age, ability, history of criminalization, or drug use. Description: Medical students and staff from the Memorial University of Newfoundland partner with Clinic 215 and The Gathering Place to provide a student-facilitated, physician-mentored walk-in clinic in downtown St. John's. Access walk-in clinics currently operate out of The Gathering Place weekly. Access Pap clinics operate out of Clinic 215 every three months. Access collaborates with many local community partners and is supported by multiple community funders. Evaluation: The clinic will be seeking optional feedback from patients and student volunteers to ensure that our services remain anti-oppressive, patient-centered, relevant, and of high quality. Conclusion: The program has held twenty-one walk-in clinics at the Gathering Place, six walk-in clinics at Clinic 215, three Pap clinics at Clinic 215 with a total of 158 patients. 99 medical students have supported clinics and associated services to date and we've facilitated social justice training for over 200 medical students.

The Baby Friendly Journey in Newfoundland and Labrador: A Five year review

Anne Drover, Yoshani de Silva

Context: Breastfeeding initiation and duration in Newfoundland and Labrador is far below the national average and below World Health Organization recommendations. The Baby Friendly Initiative (BFI) is a program, when followed, results in increased breastfeeding initiation and duration rates. Objective: This study surveyed the ten facilities in NL with obstetrical services with respect to compliance with the Ten Steps of the BFI using the Maternity Practices in Infant Nutrition and Care (mPINC). Design: The mPINC survey was admistered to the managers of obstetrical services four times of over five years. The scores were calculated to determine improvement in compliance with BFI over the course of five years. Participants: All ten hospitals with obstetrical services in Newfoundland and Labrador participated in the study. Intervention/Instrument: The mPINC survey is a standardized survey developed by the Center for Disease Control (CDC) and is administered in US hospitals every two years. It is comprised of 52 questions. Outcome measures: Composite scores were generated for each facility and compared over the five years of the study. Each facility also received sub scores in seven subcategories associated with care of the newborn. Results: Composite scores in the mPINC survey increased in all ten obstetrical centres over five years. Continued areas of deficiency are staff education, policy and newborn supplementation. Dramatic improvements have been seen in immediate postpartum care and early initiation of feeding. Conclusion: The mPINC survey is a quick, easy and reliable method to determine incremental improvements in hospital compliance with the ten steps of the Baby Friendly Initiative. Overall, hospitals are improving practices related to the care of the newborn in order to increase breastfeeding initiation and duration rates; however more work needs to be done to get to full compliance throughout the province.

The Economic Impacts of SurgeCon: A Unique Surge Management Platform to Reduce Emergency Department Wait Times

Mehdee Araee, Shabnam Asghari, Christopher Patey, Paul Norman, Oliver Hurley, Ron Johnson, Hai Van Nguyen

Context: Prolonged emergency department wait time is the matter of concern for many Canadians. Lengthy wait time has negative impacts on Emergency Department (ED) performance and causes significant economic costs to healthcare system. SurgeCon is an innovative approach designed to improve the efficiency of ED and ultimately

reduce the patient length of stay and wait time. Objective: We first evaluate the economic impacts of SurgeCon on emergency patient flow, and then, estimate the potential economic benefits in Carbonear and Newfoundland and Labrador. Design: We analyze secondary data from Carbonear ED visits between July 1, 2013 and March 31, 2018. We will also use publicly available hospitalization reports between 2013 and 2017 from Newfoundland and Labrador. We conduct an Interrupted Time Series Analysis (ITSA) to determine the impacts of SurgeCon's initiatives and predict the future trend of ED performance indices. Participants: N/A. Intervention/Instrument: SurgeCon's quality improvement initiatives include a set of best practices such as the independent external review, rapid assessment zone, environment & aesthetics, patient-centeredness, PIA focus, staff exposure and awareness of performance data and patient flow, and action-based surge capacity protocol. Outcome measures: We study three outcomes: (1) Wait time for initial physician assessments (PIAs) and length of stay for departed patients(LOSDep); (2) Total cost-savings; and, (3) Potential economic benefits of SurgeCon over the next five years. Results: Data from Carobonear ED show substantial reductions after intervention for PIA's (104 vs 57 minutes, $p<0.000$), and LOSDep (199 vs 146 minutes, $p<0.000$) respectively, despite a 26% increase in patient volume. (The estimation of the monetary value of reduction in wait time is in progress and will be presented at the conference.) Conclusion: SurgeCon has the strong potential to improve ED performance and reduce lengthy wait time at ED in Newfoundland and Labrador.

The Effectiveness of Transitions as a Self-Learning Tool Designed to Improve Mental Health Literacy of Students in Higher Education

Katherine Houser, Michael Zhang

Context: Of the main barriers to mental health treatment, stigma towards mental health and lack of awareness about available health services remain areas of concern amongst college and university students (McGorry, 2005; Thompson et al., 2004; Wells et al., 1994). It is very important to analyse the obstacles and motives for help seeking behaviour and find effective tools to promote those behaviours. To be able to evaluate the effectiveness of the promotion tools, it is important that they are empirically tested and verified. Objective: To evaluate the effectiveness of Transitions as a self-learning tool for improving student mental health literacy. The impact of Transitions on post-secondary students' knowledge, attitude towards mental health, and help-seeking behaviours was also investigated. Design: The evaluation was done using two surveys, administered a month apart, such that participants read Transitions in between. A series of knowledge questions in the surveys indicate the main points in students knowledge and attitudes about mental health illness. Participants: Students were randomly selected on campus at Saint Mary's University, Halifax, Nova Scotia. Students remained anonymous and provided consent prior to completing the survey. Intervention/Instrument: The questions are linked to learning points of mental health literacy for which student responses are investigated to form a complete understanding of the relation to each point. Questions related to stigma and help-seeking behaviours among students themselves and towards colleagues and family members were also included. Both the student's attitudes towards mental illness and the effect of the tool are analysed. Outcome measures: To indicate the points of weakness in student's awareness, knowledge and attitudes about mental health. To identify and analyse the effect of the experience of reading Transitions on the above points; on positively shifting the directions in mental health awareness. The above is done for the different learning points, as well as a cross-sectional self-report on the overall effect. Results: The anticipated results should demonstrate the effectiveness of Transitions as a learning tool on student's knowledge about mental health, how to deal with mental health issues and use of available resources. Additionally, to positively promote students' attitude toward stigma surrounding mental health and mental illness and improve student help-seeking behaviours. Conclusion: The research targets a very significant problem in student's knowledge and attitude toward mental illness. It is especially significant due to the increased rate of mental illness (1 in 5) among college students and the clear mentioned

obstacles of lack of knowledge, help seeking behaviour and stigma. The work practically analyzes and evaluates the use of an awareness tool (Transitions) on students behaviour before and after the knowledge gaining process. It demonstrates that stigma can be reduced by using education tools. Students will know more about mental illness and how to deal with it correctly. The work can be further extended to evaluating other tools for awareness and stigma among university students, like online methods and film screening.

The Impact of Demographic Clinical and Provider-Level Factors on Psychiatric Inpatient Length of Stay in New Brunswick

David Miller, Scott T. Ronis, Amanda K. Slaunwhite

Context: Recent health care policy has emphasized a need to reduce overall length of stay (LOS) in inpatient psychiatric care, which resulted in an overall decrease by as much as 63% across Canada and the US in the decade preceding 2010. The push to reduce LOS is largely a product of the need to reduce costly inpatient care and balance the distribution of resources. However, LOS is a complex and multifaceted risk factor, often influencing individual treatment due to inadequate length (rather than shortened or extended length), potentially creating a concern for individuals with more severe disorders who may not be adequately stabilized before discharge. Objective: As such, the goal of this study was to identify the predictors of LOS to better identify factors that influence treatment length. Design: Utilization of longitudinal administrative data allowed for an examination of LOS as potentially affected by policy shifts over time. The study used a retrospective cohort design examining secondary data from the New Brunswick Discharge Abstract Database (DAD), a provincial administrative dataset accessed through the New Brunswick Institute for Research, Data, and Training (NB-IRDT). Hierarchical regression analysis was used to determine the contributions of factors to psychiatric LOS over and above the influence of institution-level factors (which were previously identified through extant literature as playing the predominant role in LOS). Participants: Study participants consisted of children, adolescents, and emerging adults 10 to 25 years of age admitted for psychiatric conditions to a New Brunswick hospital between April 1, 2003 and March 31, 2014 (N = 59,617). Intervention/Instrument: n/a Outcome measures: n/a Results: Results indicate a number of significant health service, predisposing, and illness-related predictors of psychiatric length of stay among youth and adults in New Brunswick. Conclusion: The implication of these findings with respect to psychiatric hospitalisation trends and future policy development are discussed.

Using the arts to engage and promote health and wellness in youth

Lisa Bishop, Stephen Darcy

Context: The interdisciplinary health care professionals and community partners of the Shea Heights Community Alliance with the support of the Power of the Arts in Medicine Fellowship sponsored an art experience for youth of the local junior high school. The purpose of this project was to use artistic expression as a method to engage with youth to promote mental health and wellbeing, while developing arts-based skills. Objective: Develop and implement a community program to teach arts-based skills to youth with the goal of promoting youth mental health and wellbeing. Target audience: Community workers; interdisciplinary health care professionals; health educators and learners; policy decision makers; and other members of the community who are invested in youth mental health and wellness. Description: The project took place over the winter of 2016 with weekly art sessions run by a local "multidisciplinary" artist. Art, music and photography were interspersed with sessions devoted to topics of importance to youth and identified by them such as dating violence, relationships and money management. The program was capped off by an exhibit of youth's art work. The video showcases the art exhibit and displays the role of the arts in the healthy self expression and resilience of youth. Evaluation: Both quantitative and qualitative methods of data collection were used. Pre and post evaluation surveys with the youth participating in the program.

A focus group was held with youth at the end of the program and interviews were conducted with the mentor and research assistant (RA) at the end of the program. The field notes taken by the mentor and RA during the art sessions were analyzed for themes. Conclusion: This arts program concluded spring 2016. Engagement continues with the youth through other arts initiatives. The arts program is part of a larger community engagement initiative to promote youth mental health and wellness.

Youth Parent and Service Provider Perspectives on Technology and Mental Health

Brandi Bell, Kate Tilleczek, Matthew Munro

Context: Emerging technologies and digital media continue to be thoroughly integrated into young people's lives. Computers, smart phones, the internet, and social media have the potential to support mental health promotion and treatment for youth; however, they also introduce new challenges for youth mental health. Objective: In this presentation, we explore the complicated relationship between digital media (e.g., the internet, smart phones, social media) and the lives of youth, particularly with respect to mental health. Drawing from interviews with youth experiencing mental health challenges, parents of such youth, and mental health service providers, we examine the often diverse perspectives of these key groups. Design: Semi-structured qualitative interviews (n=169) were conducted with youth , parents, and mental health service providers as part of the Atlantic Canada Children's Effective Service Strategies in Mental Health (ACCESS-MH) project, funded by the Canadian Institutes of Health Research. We take a multi-vocal approach in this presentation to highlight not only the complex relationship between youth mental health and digital media use, but also the often divergent perspectives of these three groups. Participants: Youth (n=46) aged 10-21 and identifying with depression, anxiety, eating disorders, conduct disorder, or autism spectrum disorder (formal diagnosis or self-identifying) were interviewed about their journey in seeking help for their mental health. Parents (n=46) of children/youth aged 5-18 were interviewed about their experiences caring for a child experiencing such a journey. Mental health service providers (n=77) in medical and community settings (including education) were interviewed about their perspectives on the mental health care system in their province/region. Intervention/Instrument: N/A Outcome measures: Thematic analysis of interview data was conducted to identify themes specifically relevant to mental health and digital media use. Results: Speaking with youth, parents, and service providers about digital media and mental health reveals both anticipated and unexpected interconnections between the two. Youth and parents both seek mental health information online; however, there is also an awareness among all participant groups that not all online information is reliable, and that, in fact, youth may seek out or encounter harmful information. Digital media use, however, is also described by youth as important to coping, whether as a distraction or a means of connecting to family and friends. While service providers are concerned about some of the challenges they see digital media presenting for their clients, they also speak of the potential for technology to enhance service delivery and raise awareness about mental health. Conclusion: As young lives continue to be marked by increased use of technologies and youth-focused e-mental health initiatives are developed, it is important that the intersections of technology and mental health in young lives are fully understood. Listening to parents, service providers, and most importantly youth themselves, about the challenges and opportunities digital media present for mental health can help enhance program and policy development, e-mental health interventions, and mental health promotion.

Workshops

Building Capacity in Discovery: Working Towards Participatory Research in Indigenous Primary Healthcare

Zaida Rahaman

Objective: The objectives for this workshop, include: 1) to have a better understanding of Social Determinants of Health for Indigenous populations in rural Northern Canada; 2) to consider the value and benefits of participatory research in Indigenous primary healthcare to communities; and 3) to reflect upon the researcher's role in participatory research in Indigenous health. The participants from this workshop will have a better understanding of the Social Determinants of Health that can have an impact on Indigenous peoples' health; and, reflect upon how they can help to foster engagement in conducting participatory research in Indigenous primary healthcare. Content: The idea of this workshop stems from building capacity with Indigenous communities in conducting participatory research with a sense of discovery. When conducting research with Indigenous communities on primary healthcare issues, it is important to engage with the community and have their involvement prior to conducting the research. This is an important step in helping to strengthen community-based research and leadership in Indigenous primary healthcare. For there is a saying, that 'Indigenous people are tired of being studied on,' and want to be involved in research that affects their own lives and communities. This is a reasonable appeal, and needs to be part of the respectful dialectic action with Elders and Indigenous communities in conducting participatory research. Method: The workshop will be divided into three intervals, including: a) a video on Social Determinants of Health; b) a case study that demonstrates the concept of community involvement in Indigenous primary healthcare research; and, c) audience participation. The last section will be the bulk of the workshop, where participants can reflect upon their learning and participate in knowledge sharing about conducting participatory research in Indigenous primary healthcare. There will be small group discussions, then a bigger group discussion that summarizes their key reflection experiences. Prerequisite knowledge: A background in community health, public health, and population health would be helpful for participants. Students, clinicians, government employees, and academics are welcome to participate in the workshop. The essence of the workshop is to create a supportive learning environment of sharing knowledge, and building capacity in discovery.

Empowering Change: Leading PHC Teams toward Transformational Systems Redesign

Karen Butler, Terri Jean Murray, Cameron Campbell

Objective: Participants will learn how communities and interprofessional teams are empowered to lead health care change through a method of empowerment coaching focused on three pillars: knowledge, context, and facilitation and how this approach can be fostered in primary health care. Content: Primary health care is a philosophy for organizing and delivering a range of coordinated and collaborative community-based services that empower individuals, families and communities to take responsibility for their health and well-being. Effective primary health care requires a culture and system designed to be responsive to individual and population health needs. This presentation will outline how a model of empowerment coaching and facilitation, rooted in Implementation Science, is changing the culture of health care delivery, empowering communities, and leading to transformational systems change. Community and health care providers and leaders will share their experience of how participating in this method helped to move them to action, shift thinking and beliefs, improve patient outcomes and has the potential to transform health care service delivery in Newfoundland and Labrador. Method: Participants will have the opportunity to participate in a facilitated discussion and simulation activity related to change and to explore how

the approach can be implemented for their context Prerequisite knowledge: No prerequisite knowledge is required; this discussion is relevant for researchers, clinicians, PHC providers, health administrators and policy decision makers.

Journey Mapping as a Tool for Research and Engagement in Child and Youth Mental Health

Brandi Bell, Kate Tilleczek, Sarah Gallant, Matthew Munro

Objective: The objectives of this workshop are to introduce participants to the process of journey mapping and engage them in thinking about how this approach could be used in their workplaces or other settings to engage youth, caregivers, and service providers. Content: In this workshop, we will discuss journey mapping and our use of that approach in the Atlantic Canadian Children's Effective Service Strategies in Mental Health (ACCESS-MH) project. We will engage workshop participants in journey mapping activities and discussion about how this approach can be used for patient, family, and broader community engagement. We believe that journey mapping is a unique way to examine the lives of children/youth and that it can be used effectively as a tool to engage the wide variety of people and organizations involved in supporting child/youth mental health. Method: The session will begin with an overview presentation and then participants will be invited to engage in small group work and a larger group discussion. Prerequisite knowledge: None

Getting Your Message Out There: Tools and Approaches to Reach Non-Academic Audiences

Nicole Porter, Adam Pike, Andrea Pike, Sara O'Reilly, Kris Aubrey-Bassler

Objectives: In this session, we will introduce some easy-to-use, low-cost tools that are more suitable for sharing research findings with non-academic, non-researcher audiences (e.g., policymakers, clinicians, and patients). Content: Knowledge translation and dissemination is an important part of any research project; if research findings are not shared, opportunities for synergistic collaboration with policymakers and uptake among clinicians are lost. However, primary care research is often conducted with limited funds, restricting researchers' ability to engage professional services to generate the most effective KT and dissemination materials, reducing researchers' potential reach. In this workshop, you will learn techniques to present information and documentation more effectively using simple, low-cost data visualization tools to maximize the impact of knowledge translation and dissemination efforts. Method: The presenters will discuss how to prioritize information by audience, and demonstrate some tools and techniques for data visualization using examples from our own research unit. Participants will learn how to create an infographic using a free online tool. Prerequisite Knowledge: Basic computer skills and knowledge of Microsoft Word is required.

Program Evaluation in Academic and Clinical Settings: Developing Logic Models and Evaluation Frameworks

Russell Dawe, Sandra Parsons, Sara O'Reilly

Objective: This teaching session will enable participants to: 1. Create a logic model that describes a program's activities, outputs, and intended outcomes. 2. Use a logic model to communicate the components and purpose of a program. 3. Describe what an evaluation framework is and how a logic model is used to help build one. 4. Incorporate logic models in academic and/or clinical settings. Content: Program evaluation in academic and clinical settings can help systematically determine if your program, policy, or initiative is working as intended and producing the desired outcomes. A logic model describes a program. Developing a concise logic model is one of the first steps in evaluating a program. Participants will leave this teaching session with the ability to describe the purpose of a logic model; create a logic model; and apply these skills in program planning, management, and improvement.

Method: Time will be divided as follows: 1. A Short presentation will be used to review an example logic model. 2. Small working groups of participants will then create a logic model. 3. Question/answer and large group discussion: Presenters will address participants' questions and pose questions to the group regarding participants' own experiences with program evaluation in academic and/or clinical settings. Prerequisite knowledge: This introductory-level teaching session is intended for clinicians and/or educators who have an interest in evaluating the programs they implement. No research or program evaluation experience required.

The Twice-Exceptional Child - Diagnosis - Misdiagnosis - School Issues and Mental Health Needs

Jacques Richard

Objective: This workshop is suitable for health and school-based professionals who are interested in identifying twice-exceptional children and intervening with these gifted children who also present with a specific learning disability or other neurodevelopmental disorder. Participants will learn how to recognize characteristics of giftedness, as well as relevant symptoms for comorbid or differential diagnosis of Oppositional Defiant Disorder, Attention Deficit/Hyperactivity Disorder, Autism Spectrum Disorder, and Specific Learning Disability. Content: Despite higher than average intelligence, the twice-exceptional child often demonstrates school adjustment difficulties, as well as challenges in other important areas. Why is it so difficult to meet his or her needs in the classroom and elsewhere? Topics of the workshop will include: Characteristics of gifted and twice-exceptional children, differential diagnosis, school strategies, and suggestions for optimal growth and mental health. Method: The workshop will be given in a lecture format that will also incorporate clinical vignettes, group discussions, and a question period. Prerequisite knowledge: None

Understanding Systematic Reviews

Amanda Hall, Bethan Copsey, Jacqueline Thompson, Gabrielle Logan

Objective: The objective of this session is to provide an understanding of what systematic reviews are and how to use the results to help inform practice. The session is divided into two main parts. Part 1 will provide an overview how systematic reviews are developed and conducted. Part 2 will provide describe how to interpret forest plots. Content: The content of session will answer the following questions: Part 1. How are systematic reviews conducted – an overview of the process: How is a question formed? How is a search conducted? How are studies selected? How is a meta-analysis designed and performed? Part 2. How to interpret the meta-analysis results What is a forest plot? How to interpret forest plots? How to apply the results to your practice? Lastly, we will provide information on how to team up with researchers to get involved in designing, conducting or applying evidence from a systematic review. Method: This session will use a combination of didactic information, group discussion and participant exercises to demonstrate core concepts related to interpreting forest plots. Prerequisite knowledge: none

Working With Families of Youth With Emotional or Behavioural Difficulties

Scott Ronis

Objective: Participants will learn some strategies for helping youth and families. The objectives of this session are to provide participants with insight into maladaptive family patterns and to provide families with specific recommendations to assist them in obtaining effective services. Content: The session will include a brief historical overview of family therapy and key concepts of family systems theories. Notable empirically informed clinical assessments of family functioning and family-based interventions will be reviewed. Typical examples of youth mental health problems, such as behavioural problems, anxiety, or depression, will be examined from a family

systems perspective, and general recommendations for working with families will be provided. Method: The general approach of the session will be didactic, but there may be opportunity for some experiential activities through discussion or role playing. Handouts will be provided. Prerequisite knowledge: This session will be directed toward front-line providers in health, education, social service, and mental health services systems who work with youth or families, although no prerequisite knowledge is necessary.

Posters

A Cross-Sectional Analysis of Prevalence of Mental Disorders and Access to Mental Health Care Among Youth

Isabel Garces Davila, Scott Ronis, Paul Peters

Context: Despite high prevalence of mental disorders and a wide range of health and social problems associated with these conditions, service utilization among youth is low, with only 20 to 25% of youth who need services accessing them. Objective: The objective of this study was to examine individual (e.g., age, sex, education, income, perceived need), neighborhood (i.e., community size) and health region-level (i.e., regular source of care) correlates of access to professional mental health services among youth with depressive and substance use disorders. Design: This is a cross-sectional study. Participants: Data from the Canadian Community Health Survey (CCHS) 2011-2012, Mental Health (CCHS-MH) and Annual Components, and the Postal Code Conversion File Plus (PCCF+) were merged and analyzed to examine individual, neighborhood, and health region-level determinants of mental health services utilization among youth with mental disorders (i.e., depressive, substance use disorders, and comorbid disorders). The data were weighted using bootstrap weights based on the Canadian population of individuals aged 15 to 24 years to ensure accurate representation of the youth population. Intervention/Instrument: A series of sequential binomial logistic regression analyses were conducted. Outcome measures: This study examined consultation of professional mental health services as the outcome measure. Results: Results indicated that diagnosis of depressive disorders was reported by 8% of youth, and substance use disorders was reported by 12%. Only 12% of adolescents and young adults consulted professional mental health services. The odds of consulting professional mental health care were 2 times higher for females than for males. Perceiving a need for care increased the odds of consulting professional mental health care. Furthermore, having a family doctor increased the odds of consulting professional mental health services for youth. Conclusion: This study not only examined individual and ecological determinants of access to mental health services but also analyzed key variables at the health region-level. Although diagnosis of mental disorders among youth have been found to be strong predictors of access to services, the results from this study indicate that it is not diagnosis of mental disorders per se, but rather the interaction with other factors (e.g., income, social support, perception of need for care) that drives access to services.

A scoping review of the utilization of the Nursing Role Effectiveness Model within healthcare research

Julia Lukewich, Megan Kirkland, Joan Tranmer

Context: Within Canada, over 400,000 nurses play important roles in the provision of patient care across all sectors of the healthcare system. The Nursing Role Effectiveness Model (NREM) is a framework developed to guide the evaluation of nursing contribution to patient care. The NREM has been tested and applied, predominantly in the acute care sector. We have limited understanding of its utility in other sectors, particularly primary healthcare. Objective: To explore application of the NREM as an organizing framework for research evaluating nursing effectiveness in primary healthcare. Design: Scoping Review Participants: Allied and Complementary Medicine, CINAHL, Cochrane Library, Embase, Medline, Mosby's Nursing Consult, ProQuest Dissertations and Theses,

PsycINFO, and PubMed. Intervention/Instrument: N/A Outcome measures: N/A Results: The search yielded 20 articles included for review. The majority of studies that utilized the NREM were conducted in acute care (n=12). Fewer were conducted within community settings, with only two studies in primary care. Many studies utilized the NREM as a framework to guide the development of expected relationships between variables. Conclusion: The NREM has been successfully used and validated within the acute care setting. There has been a paucity of evidence applying this model to community settings, particularly primary care. Given the success of the NREM within other healthcare settings, it is likely that this model will be useful in the development of studies assessing similar relationships in primary care. Evaluating the contribution of nurses within primary healthcare interdisciplinary teams to the quality and cost of care is necessary for providing accountability to nursing practice and performance.

A snapshot of inter-jurisdictional employment: Relevancy for youth and families

Kathryn Malcom, Scott Ronis

Context: Inter-jurisdictional workers maintain a permanent residence in one geographic location while working and temporarily living in another geographic location. Most inter-jurisdictional workers are involved in romantic relationships or have children (Barclay et al., 2013). Although previous research has suggested that inter-jurisdictional employment can impact family relationships and parenting quality (Kaczmarek & Sibbel, 2008; Lester, Watson, Waters, & Cross, 2016), little is known about the background of inter-jurisdictional workers and their families which may affect their ability to get help to deal with stressors. Objective: To provide a summary of the background and demographic characteristics of inter-jurisdictional workers and at-home partners and to describe how these factors may impact their ability to obtain services for their children and families. Design: An online questionnaire with a cross-sectional study of workers and at-home partners using Amazon's Mechanical Turk. Participants: Inter-jurisdictional workers or at-home partners (N = 198) living/working in the United States, Canada, or Australia. Intervention/Instrument: Participants completed a variety of questions on their background information (i.e., number of children in the family, work schedule, use of substances, relationship satisfaction). Outcome measures: N/A. Results: Participants were predominantly at-home partners (n = 109; 54.8%), male (n = 107; 53.8%), heterosexual (n = 181; 91%), and were 33 years old on average (SD = 8.99). Many participants had children (n = 88; 44%) and reported high levels of relationship and sexual satisfaction. Most reported drinking at least once a month (n = 159; 79.8%), and of those participants, 26.1% (n = 52) reported drinking at least two times a week. Conclusion: Previous research has linked inter-jurisdictional employment to parenting stress (Kaczmarek & Sibbel, 2008), in part because of the difficulties associated with the cyclical nature of employment. Participants in the current study reported, on average, high levels of relationship satisfaction. Given that family connectedness has been shown to serve a mediating role in the association between youth well-being and inter-jurisdictional employment (Lester et al., 2016), perhaps families who are more satisfied in their romantic relationships experience less overall levels of stress and more family connectedness, which may be linked with overall mental health and service use of youths.

An analysis of the factors affecting pharmacists perception of their work environment and provision of patient care in Newfoundland and Labrador

Erin Davis, Jason Kielly, Debbie Kelly

Context: Pharmacists in Newfoundland and Labrador are able to provide medication reviews, injections and to prescribe in certain situations. The impact of pharmacy workload and service quotas on the provision of these services and how they relate to the safety and effectiveness of patient care in NL is unknown. Objective: Identify concerns about workplace conditions and factors, such as service quotas or pharmacy workload, that pharmacists perceive as having an impact patient care. Design: Survey Participants: All pharmacists in Newfoundland and

Labrador, working either full time or part time in community practice were eligible. Thirty-five percent of registered NL pharmacists completed the survey. The majority of respondents were female, with an average age of 42 years. Most respondents worked in chain or banner pharmacies and were either the pharmacist in-charge or a staff pharmacist. Intervention/Instrument: An electronic survey of NL pharmacists was conducted from March to April 2016. Information was collected on pharmacist demographics and pharmacy-specific characteristics, including information on the type and frequency of expanded services provided, the presence/absence of service quotas, prescription volume and pharmacy staffing. Pharmacists were asked to indicate their level of agreement with six opinion statements. Outcome measures: Agreement with the 6 opinion statements, Relationship of demographic and workload characteristics with pharmacist agreement with the 6 opinion statements, including prescription count per day, average wait time, pharmacy role, primary practice site and the presence of quotas. Results: Pharmacists generally felt that their work environment was conducive to providing safe and effective patient care, but they did not feel they had adequate time to do their jobs or enough time for breaks/lunches. Pharmacists who were expected to meet quotas for professional services or whose workplace was 'busier' also perceived their work as being less 'safe and effective.' Conclusion: Pharmacists perceive their workplace as being more conducive to safe and effective patient care when they work shorter shifts, have a shorter prescription wait time, and fill less prescriptions per day, while the opposite was true of quotas for prescribing and medication reviews.

An Evaluation of Treatment Interventions for Emerging Adults with Substance Use Disorder: A Systematic Review

Kathryn Dalton, Lisa Bishop, Stephen Darcy

Context: Recent insights into the developmental and life differences of the emerging adult (age 18-25), as well as the high incidence of substance abuse in this population, requires emerging adults to be regarded as a distinct population group. Research shows that emerging adults often drop out of treatment earlier than adults age 26+, and retention in treatment is important because it is positively correlated to a range of important outcomes including reduced drug use, a higher social functioning, and a higher quality of life. Research on emerging adults is limited and there is a need for improved services. In order to improve services for emerging adults, there needs to be a better understanding of what treatment interventions work best for this population. Objective: This purpose of this study was to evaluate treatment interventions that lead to the highest rate of retention in treatment for emerging adults with substance use disorder. Design: Systematic Review Participants: Eleven studies were included; three randomized control trials (RCTs), one open pilot trial and seven cohort studies. Articles that investigated drug and/or behavioural/psychological interventions for emerging adults with substance use disorder were eligible for inclusion. Intervention/Instrument: Behavioural and/or pharmacotherapies for substance use disorder Outcome measures: The primary outcome measure was retention in treatment, as defined by patients remaining in treatment for the entire duration. Results: Interventions that lead to the highest percentage of treatment retention for emerging adults involves behavioral therapy such as CBT/CM for substance use disorder, and buprenorphine, naltrexone, or suboxone with or without behavioral therapy, specifically for opioid use disorder . This review also suggests longer detox taper increases treatment retention. Treatment can be improved when therapies are tailored to the age-specific requirements of the emerging adult or if emerging adults are in the same environment with only emerging adults. Conclusion: Emerging adults with substance use disorder should be treated as a distinct developmental group requiring tailored treatment. Treatment for this population can be improved when standard treatment is tailored to the specific needs of emerging adults.

Appropriateness of CT and X-ray Imaging for Patients with Low Back Pain: A Systematic Review

Gabrielle Logan, Amanda Hall

Context: Guidelines recommend the appropriate use of diagnostic imaging for low back pain (LBP) to decrease unnecessary testing. Many studies categorised imaging appropriateness compared to various guidelines, but no review has published the proportions and ranges of appropriately ordered imaging. Objective: This systematic review was conducted to synthesize global appropriateness of CT and x-ray imaging for LBP patients. Design: Systematic Review. Participants: Studies were eligible if they reported imaging data for any form of a patient's LBP, compared either General Practitioners or Emergency Department physicians' practice to a guideline source, and quantified imaging adherence to a guideline. Intervention/Instrument: Pubmed and Embase were searched for synonyms of "low back pain", "guidelines", and "adherence". Titles, abstracts and full texts were reviewed for inclusion with reference lists of included studies scanned for other eligible studies. Outcome measures: Included studies appropriateness of imaging data were extracted and descriptively synthesized. The REporting of studies Conducted using Observational Routinely-collected health Data (RECORD) checklist was used to assess transparency of reporting; items related to participant-selection, outcome-measurement, outcome-reporting and confounding were used to assess risk of bias. Results: 670 publications were found, and 132 full texts were reviewed. Eight reported appropriateness of x-rays, three studies reported appropriateness of CT scans, and eleven studies reported combined appropriateness for a total of 21 included studies. Studies were conducted in Canada, United States, Ireland, France, Australia, Norway, United Kingdom, Spain & Finland. Comparison guidelines came from European Commission recommendations, Agency for Healthcare Research & Quality, Agency for Health Care Policy & Research, National Institute for Health & Care Excellence, American College of Radiology, Royal College of Radiologists, Choosing Wisely, Norwegian Guidelines, or Agence Nationale d'Accréditation et d'Evaluation en Santé. Appropriateness ranged from 2% to 96%, while inappropriateness ranged from 4% to 82%. Studies underreported information to fulfill the RECORD checklist criteria or to assess risk of bias on participant selection and outcome measurement. Conclusion: The large range of appropriateness may be due to the different guidelines used to generate appropriateness criteria. Quantification of appropriateness would benefit from additional collaboration among experts to generate a standardized set of criteria with which to judge imaging appropriateness, and then report it.

Appropriateness of General Practitioner CT Referrals for Patients with Low Back Pain: a Medical Record Review

Gabrielle Logan, Amanda Hall, Patrick Parfrey, Holly Ethegary

Context: CT Imaging is ordered for patients with low back pain (LBP) by their General Practitioners(GPs), and often done so unnecessarily. Though evidence-based guidelines have been created to help physicians provide more timely care with better patient outcomes, little is known to what extent GPs are appropriately ordering CTs for LBP in Canada. Objective: This study aims to evaluate the appropriateness of CT imaging for LBP patients by GPs when compared to the American College of Physician guidelines. Design: A retrospective medical record review of CT referral forms for the lumbar spine. Participants: A random sample of 1000 lumbar spine CT referrals ordered in 2016 by a GP or family medicine physician in the Eastern Health Region in Newfoundland were included for analysis. Intervention/Instrument: Each referral was identified from Meditech, a health database, and linked to the patient radiological records in the Picture Archiving and Communication System (PACS). Demographic information was pulled from Meditech, and the reason for referral was manually collected from PACS. Outcome measures: The primary outcome was appropriateness, where each referral was compared to the American College of Physicians guidelines and categorized as appropriate or inappropriate. Results: Data coding and analysis is still ongoing. The sample of referral forms was selected out of a possible 3681 CT referrals ordered by GPs in 2016. In the first 823 records that have been coded, less than 5% of CTs were ordered for a suspected red flag condition.

46.3% of referral reasons were for nerve issues, 23.4% for a disc issue, and 9.7% for low back pain. Preliminary demographic information indicates 51.9% of the records collected were for female patients, with a mean age at time of CT of 55 (±14 SD). Conclusion: The results show that the majority of lumbar spine CT referrals are for reasons other than a red flag suspicion, and this is not consistent with imaging guidelines. There is need to reduce inappropriate CT referrals, not just for the cost-benefit for the healthcare system, but also for better low back pain care.

Assessing the Effects of Delayed Newborn Bathing in a Retrospective Cohort Study in Newfoundland and Labrador

Susan Warren, Laurie Twells, Leigh Ann Newhook, William Midodzi

Context: The World Health Organization (WHO) recommends delaying newborn bathing until at least 24 hours of life despite the limited published clinical evidence on the subject. An increasing number of hospitals are adopting delayed bathing policies as did the Janeway Children's Health & Rehabilitation Centre in March 2015. Objective: To provide a clinical assessment of the WHO's recommendation to delay newborn bathing by 24 hours by comparing the clinical effects of delayed bathing on breastfeeding rates, glycemic control and thermoregulation before and after the policy change. Design: This research was conducted using a retrospective cohort study design. Randomly selected charts of the mother/infant pairs born prior to the policy change and bathed before 24 hours of life were compared to randomly selected charts of pairs born after the policy change and bathed after 24 hours of life. Participants: Study sample included 1225 mother/infant pairs that comprised of 680 infants in the early bathing cohort and 545 infants in the delayed bathing cohort. Inclusion criteria for this study were infants born during the study period who were 34 weeks gestation and greater and subsequently admitted to the maternity ward (5 North B). Infants for whom it is contraindicated to breastfeed were excluded: HIV positive mothers and mothers using illicit drugs or methadone. Also excluded were infants for whom delaying the bath was contraindicated: infants born to mothers with hepatitis B, hepatitis C, active herpes simplex virus infection, and methicillin-resistant Staphylococcus aureus. Mothers who were admitted to ICU post-delivery were excluded as were infants who were admitted to NICU directly from the case room. Intervention/Instrument: Prior to the policy change newborns were taken, by a nurse, from the delivery room to the nursery where they were bathed and assessed before being returned to mothers' room. On average, this bathing occurred at 3.5 hours of life and consisted of tub bathing with cleanser after which baby was wrapped in blankets and placed in a warmer or cot. Subsequent to the policy change, the average newborn bathing time was at 30 hours of life. This bathing was typically done by parents in mothers' room under the guidance of a nurse. After bathing moms were encouraged to place baby skin-to-skin or babies were wrapped and given to mother. Outcome measures: The primary outcome of this study was comparison of the rates of in-hospital breastfeeding initiation and exclusive breastfeeding at discharge, in infants bathed before and after 24 hours of life. Secondary outcomes were a comparison of rates of infant hypothermia and hypoglycemia. Results: Exclusive breastfeeding rates increased from 53.6% in those infants bathed before 24 hours to 59.4% in infants bathed after 24 hours. After adjusting for gestational age, induction or augmentation, large or small for gestational age, c-section and epidural, infants bathed after 24 hours of life had odds of exclusive breastfeeding at discharge 33% greater than those infants bathed before 24 hours (adjusted odds ratio 1.334, 95% CI 1.049-1.698, p=0.019). No significant difference in breastfeeding initiation rates were observed (adjusted odds ratio 1.275, 95% CI 0.952-1.708, p=0.019). Hypothermia rates increased from 1.8% in those infants bathed before 24 hours to 4.4% in those infants bathed after 24 hours. After adjusting for gestational age, induction or augmentation, large or small for gestational age, c-section and epidural, infants bathed after 24 hours of life were 2.5 times more likely to experience a hypothermic event than those bathed before 24 hours (adjusted odds ratio 2.524, 95% CI 1.239-5.142, p=0.011). No significant differences in rates of hypoglycemia were observed (adjusted odds ratio 0.916, 95% CI 0.421-1.994,

p=0.826). Conclusion: In our study cohort, delaying newborn bathing by at least 24 hours was associated with an increased likelihood of exclusive breastfeeding at discharge. Delayed bathing was associated with increased rates of hypothermia. Although delaying newborn bathing has the potential to improve breastfeeding rates at discharge, care must be taken to ensure that infant temperature is maintained.

Assessing the quality of HIV care in the primary healthcare setting in Canada

Jillian Hurd, Tao Chen, Marissa Becker, Claire Kendall, Alex Singer, Shabnam Asghari

Context: People living with the Human Immunodeficiency Virus (PLHIV) have ongoing healthcare needs as HIV has become a chronic disease that is managed over a longer lifespan. As the care for HIV shifts to a chronic disease model, predominately speciality based care is transitioning to primary care settings. Assessing the quality of care in primary care settings is essential to ensuring optimal HIV management and the best outcomes for PLHIV. Objective: 1. Develop a case definition for HIV applicable to the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) database. 2. Examine the burden of disease for PLHIV including morbidity and mortality in primary care settings 3. Determine how PLHIV are accessing and utilizing the primary healthcare setting. Design: Primary Care Electronic Medical Record data from CPCSSN (houses exclusively primary care data) was used to develop a retrospective cohort between 2009 and 2016. A validated case definition was applied to describe the population of PHIV. This cohort will be analyzed to assess access to primary healthcare and patients' utilization. Participants: People living with HIV in Canada, whose records are available within CPCSSN. Intervention/ Instrument: Secondary analysis of Canadian Primary Care Sentinel Surveillance Network (CPCSSN) database. Outcome measures: Patient demographics, comorbidities, medications, frequency of visits, referral information, vaccine history and mortality will be analyzed descriptively to understand how PLHIV are currently utilizing primary healthcare and where improvements can be made. Results: To date, the case definition has been developed and data extraction has begun. Descriptive results will be completed in time for the conference. Conclusion: This is the first Canada wide study investigating the utilization of primary healthcare by PLHIV. This study will identify patterns in HIV healthcare in the primary care setting, which is a pre-requisite to improving the quality of HIV care in the primary care setting.

Breast Milk Expression after Domperidone Treatment in Postpartum Women: A Systematic Review and Meta-analysis of Randomized Controlled Trials

Alicia Taylor, Gabriela Logan, Leigh Anne Newhook, Laurie Twells

Context: Insufficient milk production is among the most cited reasons by mothers for discontinuing breastfeeding[1]. This can cause mothers to turn to medications which can increase milk production, such as domperidone, an off-label galactagogue. It is controversial because it is not approved for any purpose in the US and is only approved for gastrokinetic purposes in Canada and other countries[2]. Objective: To update the existing literature on the efficacy of domperidone as a galactagogue compared to placebo when given to mothers with insufficient breastmilk production. Design: Systematic Review Meta-Analysis Participants: A systematic search of Pubmed, Embase, and CINAHL was conducted. Authors independently searched the literature, including any randomized controlled trials examining the efficacy of domperidone increasing mothers' expressed breast milk, measured via a breast milk pump. Intervention/ Instrument: Both authors independently assessed quality and risk of bias, and extracted relevant data. There were six randomized controlled trials that met the inclusion criteria for review, but one study was excluded from the meta-analysis due to quality grading and insufficient reporting of the outcome of interest. Outcome measures: The primary outcome is the increase of expressed breast milk volume from baseline. Results: Five studies (N=239) were combined in the meta-analysis. The resulting effect size showed an increase in the mean difference of expressed breast

milk volume in mothers given domperidone, 93.97 ([95% confidence interval 71.12,116.83]; random effect, T2 0.00, I2 0%). Conclusion: This meta-analysis suggests improvement in expressed breast milk volume with the use of domperidone (when taken for < 7 days or > 7 days) for mothers experiencing insufficient breast milk production.

Common Indicators of Primary Healthcare: Preliminary Results of a Survey of Patients of Family Physicians in NL

Sandra Parsons, Marshall Godwin

Context: ACCESS-MH is one of twelve Community-Based Primary Health Care (CBPHC) Innovative Teams funded by CIHR to implement cross-jurisdictional programs for improving access to CBPHC among vulnerable populations, and for chronic disease prevention/management. The 12 teams collaborated to develop two data collection tools, one of which is a questionnaire that assesses patient perceptions of the quality of the services they receive in primary care, the quality of their own health, and the costs associated with their healthcare. ACCESS-MH, which spans the Atlantic Provinces, is currently surveying patients of family physicians in NL. Objective: (1) To assess how patients of family physicians in NL rate their health care in terms of its: accessibility, comprehensiveness, coordination, continuity, effectiveness, and patient centredness. (2) To assess how patients of family physicians in NL rate their own health and quality of life. (3) To assess individual costs of health care (medications, home care, mental health services, physiotherapy, etc). Design: Survey research. Participants: Approximately 4000 patients of NL family physicians who agree to have their patients surveyed will be invited. Target sample size is 1143. Intervention/Instrument: Sixty-three item questionnaire sent via mail. Outcome measures: Patient perspectives on their healthcare, health, quality of life, and healthcare costs. Results: Data collection is in progress. Preliminary results show most respondents reported being in good health and not limited in their daily activities by health concerns. Most did not have difficulty accessing healthcare during the past 12 months, and were satisfied with the comprehensiveness and continuity of care they received from their primary healthcare provider. Most reported spending $100 or less of their own money on prescription drugs in the past three months. Most reported not using physical therapy or mental health care services in the past three months. Conclusion: Complete results will elucidate how patients in NL view their health, healthcare, and associated costs. It is important to collect data on these common indicators of primary healthcare from NL to ensure the collaborative work of the CBPHC teams is informed by data from all Canadian jurisdictions.

Crossing lines of communication Women's experience of follow up care after miscarriage in the vicinity of St. Johns Newfoundland and Labrador

Rhiannon Tracey, Norah Duggan

Context: Miscarriage or spontaneous abortion is the termination of pregnancy before 20 weeks of gestation and is the cause of the cessation in approximately 15-20% of pregnancies (Robinson, 2011). While miscarriage is known to be a frequent medical complication by health professionals and the general population, it is rarely spoken about in society, possibly due to the fact that it "encompasses sensitive and taboo areas such as sex, death and perceived failure of fertility" (Murphy and Merrell, 2009, p. 1584). While much research has focused on the psychological consequences of miscarriage, including the increased levels of depression and anxiety, few studies in recent years have focused on women's perception of follow-up care and whether this care has been effective in addressing the physical, emotional, psychological and social needs of those who have experienced a spontaneous abortion. Objective: To evaluate women's perceptions of follow-up care post-miscarriage Design: Research survey Participants: The final participant size was 31 women, ages 18 and older, who self-identified as having received follow-up care for a miscarriage in the past five years in the vicinity of St. John's Intervention/Instrument: Survey Outcome measures: This survey reports objective experiences of participants on a 5-point Likert Scale. Results are given in percentages

Results: Results showed that while 43% of patients were offered follow-up care, only 31% of participants rated that care as "excellent" or "good." Qualitative data from patients who chose to share their experiences with miscarriage provide insight into the biopsychosocial challenges experienced by patients who suffer a miscarriage Conclusion: This study illustrates the need for improved follow-up care which addresses the biopsychosocial aspects of patient health.

Does place of residence have any impact on hospitalization and mortality of patients with asthma and Chronic Obstructive Pulmonary Disease (COPD) in Newfoundland and Labrador?

Gelareh Ghaderi, Masoud Mahdavian, Zhiwei Gao, Shabnam Asghari

Context: Many studies suggest place of residence affects prevalence and health care utilization in patients with asthma and COPD. These differences are clinically important as many studies indicate poor health outcomes among rural residents. Many studies suggest place of residence affects prevalence and health care utilization in patients with asthma and COPD. These differences are clinically important as many studies indicate poor health outcomes among rural residents. Understanding these differences could help to identify gaps in our healthcare system. We propose to study the relationship between place of residence in terms of rurality/urbanity and COPD and asthma hospitalization and mortality. Objective: To identify the differences in hospitalization and mortality of the patients with chronic respiratory diseases (COPD and Asthma) in rural and urban areas in Newfoundland and Labrador (NL). Design: This is a population-based retrospective cohort study using medico-administrative data. Person-year at risk will be calculated. To examine the associations between place of residence and mortality and hospitalization, geospatial analysis and multivariate regressions will be performed. Participants: Adults 20 years and older diagnosed with COPD and Asthma between 1996 and 2014 in NL. COPD and asthma are defined based on the Canadian Chronic Disease Surveillance System (CCDSS) case definition for medical administrative databases. The patients are followed from the date of diagnosis until either their death or the last year of the study (2014). Intervention/ Instrument: The exposure of this study is living in rural areas. There is no unique definition in the literature to differentiate rural and urban area. For this study, NL remoteness index will be used for classification of rural and urban areas. This index was developed by the Newfoundland and Labrador Statistics Agency (NLSA). Outcome measures: The primary outcomes are any record of hospitalization and mortality during the study period which will be compared with the patients who live in urban areas. Results: The study is in progress, and the results will be ready for the conference presentation. Conclusion: This study helps to identify the regions which need more attention regarding COPD and Asthma. This information is required for formulating effective policies to improve health care provided for the patients with asthma and COPD.

Effectiveness of Cognitive Behavioural Therapy Versus Combination Therapy in the Treatment of Binge Eating Disorder: A Systematic Review and Meta-analysis

Brittany Howell, Lais Masullo

Context: Binge eating disorder (BED) is a prevalent and harmful eating disorder that is associated with obesity as well as high rates of biological, psychological, and social distress. Research has shown that cognitive behavioural therapy (CBT) is more effective than pharmacotherapy in treating symptoms of BED, however, treatment options are still being explored. It is unclear if a combination of CBT and pharmacotherapy is more effective than CBT alone. Objective: To determine whether adding pharmacotherapies to CBT improved effectiveness compared to CBT alone in treating symptoms of BED. Design: Systematic review and meta-analysis. Participants: Seven studies met eligibility criteria and a total of 525 participants were included. Randomized control trials and cohort studies were eligible for inclusion. Participants of all ages, sizes and ethnicities were considered. All participants were required to meet the Diagnostic and Statistical Manual of Mental Disorders V (DSM V) criteria for BED.

Intervention/Instrument: This systematic review compared outcomes in patients treated for BED with CBT compared to a combination of CBT and pharmacotherapies. These studies were analyzed in review manager to calculate whether mean differences in outcomes were statistically significant. Outcome measures: The primary outcome explored was remission which was determined by whether participants withheld from binging during treatment. Secondary outcomes included scores on eating disorder questionnaires, binge eating frequency, body mass index, and scores on depression inventories. The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines (PRISMA). Results: The primary outcome showed no significant difference in remission according to treatment of BED. In the secondary outcomes, there was a treatment effect favoring combination therapy over CBT for reducing scores on eating disorder questionnaires. All other secondary outcomes showed no treatment effect. Conclusion: Findings suggest that combination therapy is no more effective than CBT in treating the symptoms of BED in outcomes of remission, binge frequency, BMI, and depression scores. Combination therapy did significantly reduce eating disorder scores; however, more studies are needed directly comparing CBT to combination therapy to further verify the results present in this review. This research can inform mental health practitioners explore the most efficient treatment options for BED.

Effects of Meteorological factors on Asthma hospitalization among adults in Newfoundland and Labrador

Elnaz Bodaghkhani, Shabnam Asghari

Context: Asthma is a common chronic inflammatory disease involving the airways. The triggers which worsen asthma symptoms could lead to an asthma attack and increased hospitalization, a known indicator of asthma care. Existing literature suggests that environmental factors such as weather conditions and variability could exacerbate asthma symptoms and possibly lead to hospital admission. Newfoundland and Labrador (NL) has the highest prevalence of Asthma among the other Canadian's provinces with a prevalence of 9.31% . Furthermore, Due to unique geographical location NL is hitting by several extreme weather systems every year. Long winter season and wind condition could influence asthma symptoms. Objective: To be able to develop prevention strategies to reduce the avoidable hospital admission due to asthma, as a first step, this study proposes a secondary analysis of existing data in NL. This is a low-cost and rapid study to describe the association between the weather factors and hospitalisation in our province. Design: This is secondary analysis of exciting medico-administrative data from the Newfoundland and Labrador Centre for Health information (NLCHI) from January 1996 to December 2016. In this retrospective cohort design all the candidates will be followed from the date of diagnosis until either their death or the end of the study (2016). Participants: All non-pregnant adults ≥ 20 years old from Newfoundlander and Labrador who were archive in the Canadian Chronic Disease Surveillance System and developed asthma between 1996 and 2016 were included in the study. At the time of entry in to the cohort, the individual have to be diagnosed with asthma. Intervention/Instrument: The Meteorological variables that obtaining from The Environmental Canada weather stations (7 stations) in the province that have located in St. John's international airport, Clareville, Deer lake, Gander, Grand-Fall Windsor, Corner Brook and Happy Valley Goose Bay between January 1996 to 2016 would be our exposure. Outcome measures: The primary outcome of this study is to find the variation in hospital admission of patients living with Asthma in the province by changes in meteorological variables. Results: The result of this study aims to provide healthcare providers with the information on how particular weather condition could affect asthma, and to predict better future demand for care service based on weather forecast or season changing. Conclusion: To our knowledge, this is the first study in NL assessing the association between weather condition and medical visits (e.g. hospital admission) due to asthma in NL. If we could find the associated between asthma hospitalisation and meteorological factors, the further research base on primary data will be assess.

From Information to Implementation: eMental Health Technologies for Anxiety and Depression in Childhood and Adolescence

Lori Wozney, Swati Rathore, Amanda Newton, Nicole Gehring, Andrea Bishop, Patrick McGrath

Context: Anxiety and depression disorders are frequent conditions in childhood and adolescence. eMental healthcare technologies are proposed to improve availability and access to services, but their uptake within health systems is limited. Practitioners need evidence-informed guidelines and digital skills to effectively and appropriately integrate these tools in their clinical workflow. Objective: To (1) examine how the implementation of eMental healthcare technologies has been studied for childhood and adolescent anxiety disorders and depression; and (2) co-develop and evaluate an evidence-informed toolkit to support clinicians in implementing eMental healthcare technologies. Design: A systematic review of the academic literature was conducted according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A mixed-method, co-design and development process was then undertaken to build and evaluate a toolkit. Participants: Forty-six studies met inclusion criteria for the review. An advisory team of clinicians (n=25) and researchers/administrators (n=5)participated in one or more of the toolkit evaluation cycles. Intervention/Instrument: Study outcomes were assessed using Proctor's Taxonomy of Implementation Outcomes. The Mixed Methods Appraisal Tool was used to determine study quality. Subsequent to the review, a four-stage project was undertaken in partnership with the Mental Health Commission of Canada to create and evaluate a 5-module toolkit. Each module provides: an overview of evidence around a key implementation theme, practice activities, case-scenario and links to other resources. Expert appraisal of the toolkit was conducted using the Behaviour Change Technique Taxonomy (BCCT v1). Practitioner feedback was collected via questionnaires. Outcome measures: Review: acceptability, adoption, appropriateness, cost, feasibility, fidelity, reach and sustainability; Toolkit: behavior change techniques, relevance, usefulness, perceived impact on practice. Results: Reported feasibility, appropriateness and acceptability outcomes in eMental health research in adolescent anxiety and depression were mixed. Cost, reach and sustainability were the least measured implementation outcomes. The toolkit targeted knowledge gaps about current evidence, building digital skills, accessing social support and modeling workflow mapping so clinicians can more easily identify appropriate and feasible eMental health technologies. Conclusion: There is scant guidance for practitioners on feasible and evidence-based strategies for implementing eMental health technologies for adolescent anxiety and depression. In order to manage the digital realities of the future, practitioners need diverse eHealth professional development and access to a stronger research-base that provides practical insights into effective implementation.

Gluten-Free Diet and Consumption of Folate-Rich Foods: A Preliminary Investigation Among Non-Celiac Adults in Newfoundland and Labrador

Aldara Mackay, Maria Mathews, Barbara Roebothan

Context: Canadians are increasingly preoccupied with food and health, and many adhere to restrictive diets. One such diet, which is growing in popularity, is the gluten-free (GF) diet. A GF diet is used to manage celiac disease, diagnosed in approximately 1% of the North American population, however it is also followed by non-celiac individuals. In Canada, refined wheat flour and enriched pasta undergo mandatory folic acid fortification, however these foods are not consumed on a GF diet due to the gluten content. Little is known about the prevalence and use of the GF diet, and the consumption of folate-rich foods in the context of the Newfoundland and Labrador (NL) population. Objective: To conduct a preliminary investigation into the demographic characteristics, dietary practices, and consumption of folate-rich foods among non-celiac adults who avoid dietary gluten. Design: Quantitative, self-report data were collected retrospectively via a web-based questionnaire. Participants: Current residents of NL ≥ 19 years were recruited through public Facebook groups. Of the 806 respondents, 88.3% reported as female and 50.6% were aged 19-34 years. Individuals who reported a physician diagnosis of celiac disease were

excluded. Intervention/Instrument: Consenting participants completed an anonymous, self-administered 17-item web-based questionnaire. Outcome measures: Data were collected on respondents' demographic characteristics, diet status, motivation for gluten avoidance and frequency of consumption of 35 folate-rich foods. Results: A small proportion of respondents (6.0%) reported following a GF diet, while 9.5% reported a gluten-reduced diet. The majority of respondents (94.0%) reported consuming at least 3 folate-rich foods daily during the study period. Age, participation in regular physical activity, and the intent to eat gluten-free foods were associated with adherence to a GF diet. Respondents who followed a GF diet were more likely to report a desire for weight loss or management of gastrointestinal/health-related symptoms as motivation for gluten avoidance. Conclusion: A small proportion of non-celiac adults were following a GF diet. Intake of folate was likely not compromised as most respondents reported consuming folate-rich foods every day. Avoiding gluten in the diet was perceived to be a health promoting behaviour among a convenience sample of non-celiac adults.

Impact of a standardized Uniform on Registered Nurses in NL

Gladys Schofield, Karen Street, Elizabeth Hynes, Andrea Barron

Context: A study conducted by Hynes, Barron, Brophy, Langor, Schofield, & Street (2012) identified factors that RNs perceived as influencing their professional identity. It was apparent that participants in that study had internalized many values contributing to their professional identity which included the professional appearance of the RN.Over the past twenty years with the demise of standardized uniforms, the word nurse has become synonymous with anyone wearing scrubs in a health care setting. This led to much confusion for clients and families who were unable to identify the RN member of the primary health care team. There has been a movement across Canada for RNs to become more identifiable with several nursing unions adopting a standardized uniform for RNs to help increase their visibility. Objective: To determine whether or not RNs in Newfoundland and Labrador are wearing the uniform of black pants and white top as recommended by their provincial union To determine how this impacts their professional visibility. To explored whether or not RNs perceive that this recommended uniform adequately distinguishes them from other health care providers. Design: Descriptive comparative study Participants: All RNs with email addresses on file with ARNNL (n=1598) and who consented to be contacted for research purposes on their 2015-2016 licensure renewal forms. Intervention/Instrument: Potential participants were sent a link via email to the questionnaire on survey monkey. Completion of the questionnaire indicated consent (n =714). Outcome measures: The purpose of this study was to determine whether or not RNs in Newfoundland and Labrador are wearing the uniform of black pants and white top as recommended by their provincial union and to determine how this impacts their professional visibility. This descriptive study also explored whether or not RNs perceive that this recommended uniform adequately distinguishes them from other health care providers. Results: Do you work in an area where the recommended uniform of black pants and white top is allowed? Yes, n = 601, (84.8%) No, n = 108, (15.2%) The recommended uniform of black pants and white top has enhanced the RNs visibility in the work place. Strongly disagree, n = 13, (1.8%) Disagree, n = 9, (1.3%) No impact, n = 30, (4.2%) Agree, n = 226, (31.8%) Strongly agree, n = 432, (60.8%) The recommended uniform of black pants and white top has adequately distinguished the RN from other health care providers. Strongly disagree, n = 12, (1.7%) Disagree, n = 11, (1.6%) No impact, n = 31, (4.4%) Agree, n = 261, (36.8%) Strongly agree, n = 394, (55.6%) Conclusion: RNs: The respondents clearly indicated the visible identifiers such as a standardized uniform enhanced RNs professional visibility. They also reported that the indicator of a standardized uniform decreased confusion among the public by distinquishing them from other members of the health care provider team.

Investigating the Potential to Incorporate Farm to School Activities in a Sample of Newfoundland and Labrador Schools

Amy O'Driscoll, Maria Mathews, Barbara Roebothan

Context: Food insecurity is a serious public health problem. Lack of knowledge and access to healthy food during childhood can affect overall diet quality and body weight, and can strongly influence emotional, behavioral and cognitive development. In Atlantic Canada, 79% of children are not consuming the recommended intake of fruits and vegetables, suggesting that there is a need for intervention. Farm to School (F2S) is an initiative that has had success in supporting students across Canada by addressing food insecurity and building sustainable food systems within schools and communities, however, to date there has been limited presence in Newfoundland. Objective: To determine the awareness, interest and feasibility of incorporating F2S activities in a sample of Newfoundland and Labrador English School District (NLESD) schools. Design: Online survey research. Participants: Key stakeholders (principals, assistant principals, teachers, breakfast program coordinators, administrators) from 53 NLESD Avalon Region metro schools. Intervention/Instrument: An online questionnaire adapted from a Farm to Cafeteria Canada national survey used to assess F2S activities currently in place in schools across Canada. Outcome measures: Levels of awareness, interest, and feasibility of incorporating F2S activities. Results: Representatives from 28 (52.8%) out of the 53 schools approached participated in the survey and 25 of those schools were interested in participating in F2S activities. While 60.7% of respondents had heard the phrase "Farm to School" before completing the survey, only 35.7% were previously aware of specific F2S activities. F2S goals and objectives that were of most interest to respondents included improving student knowledge about food, nutrition, and food systems (92%), and enhancing student nutritional health (84%). F2S activities of most interest included school gardens and greenhouses, local food tasting events, curriculum for classrooms, cafeteria salad/soup bars, farming/fishing/baking tours, food composting lessons, etc. Anticipated barriers included limited funding, volunteers, and time, as well as limited knowledge of how to run F2S activities and limited flexibility in the current curriculum. Respondents indicated the supports that are most needed include funding (64%), volunteers (60%), education and training (52%), and time (48%). Conclusion: Many schools are interested in participating in F2S activities although some anticipated barriers do exist.

Knowledge and Attitudes Towards Breastfeeding among Memorial University Medical Students

Amanda Pendergast, Amanda Terry, Merrick Zwarenstein, Sudha Koppula

Context: Newfoundland and Labrador has the lowest rate of breastfeeding initiation in Canada, rates range from 80% in urban areas to 40% in rural. The knowledge and support provided by physicians is an important protective factor for breastfeeding initiation. Understanding the knowledge and attitudes that accompanies medical students in training might explain why breastfeeding initiation rates are lower in this province than in all others. In turn, this might help shape the education of these future physicians. Objective: To determine breastfeeding knowledge and attitudes of first and second year Memorial University medical students. To describe and analyze the differences in knowledge and attitudes between subgroups such as urban and rural students. Design: A cross- sectional survey of first and second year medical students at Memorial University was conducted to determine their attitudes and knowledge towards breastfeeding. The results will be analyzed to determine if there are significant differences in knowledge and attitude scores between rural and urban medical students. Participants: Medical students at Memorial University from the Classes of 2020 and 2021. Intervention/Instrument: The 90-item Australian Breastfeeding Knowledge and Attitude Questionnaire developed and validated by Brodribb was used. There are 20 items in the attitude score, answered on a five point Likert scale, which ranges from strongly agree to strongly disagree. If an attitude item is negatively worded, the scores are reversed so higher scores represented more positive breastfeeding attitudes. The knowledge score has 40 items, also answered on a 5 point Likert scale, with the addition

of a response for "don't know". Negatively worded items are reverse scored, such that higher scores represented more breastfeeding knowledge. Since this previously validated questionnaire will be used with a different population, applicable validity and reliability assessments will be conducted. Outcome measures: Attitude and knowledge scores will be calculated. Bivariate analysis will be employed to examine the relationships between the dependent variables of knowledge and attitudes and the independent variables, such as rural and urban students. Results: The data collection has been completed, results are currently being tabulated. Conclusion: Conclusions will be available at the time of the poster presentation.

Long-Term Food Insecurity and Obesity in NL

Courtney Abbott, Yanqing Yi

Context: Food insecurity (FI) refers to the state of being without reliable access to a sufficient quantity of affordable, nutritious food. Limited research exists investigating the relationship between FI and other factors in the Newfoundland (NL) population. Previous research from other provinces was cross-sectional and shed little light on FI over time. Objective: This project aims to investigate long-term FI in NL and its determinants from a dynamic perspective. Design: This study uses the longitudinal data from the National Population Health Survey (NPHS, 1994-2011). Participants: The sample includes NPHS respondents aged 18 years or older and residing in NL in 1994/1995 (N=603). Individuals with less than three FI measures over nine NPHS cycles records are excluded. Intervention/Instrument: NA Outcome measures: Latent-class growth modeling (LCGM) is used to identify FI trajectories over NPHS cycles and the associated factors. Results: Four distinct FI trajectories have been identified: No food-insecurity (NFI), High-stable (HS), Low-increasing (LI), and High-decreasing (HD). FI group membership was significantly associated with disability status, home owning, income level, smoking, and receiving social assistance after 2006. Conclusion: It is crucial to tailor health care policy to include considerations for at-risk groups. Awareness of discrete FI trajectories and associated factors may allow for reorganization policy to address specific issues in the NL population.

Mental Health Care Utilization Among Youth with Mental Disorders: A Cross-Sectional Analysis of Hours and Types of Services Consulted

Isabel Garces Davila, Scott Ronis, Paul Peters

Context: Although mental illness is associated with an array of psychosocial and health problems among youth, only 20% of youth who need mental health services receive them. Objective: The objective of this study was to examine individual (e.g., age, sex, education, income), neighborhood (i.e., community size) and health region-level (i.e., regular source of care) correlates of mental health service utilization (i.e., types and hours of services consulted) among youth with depressive and substance use disorders. Design: Cross-sectional study. Participants: Data from the Canadian Community Health Survey (CCHS) 2011-2012, Mental Health (CCHS-MH) and Annual Components and the Postal Code Conversion File Plus (PCCF+) were merged and analyzed to examine determinants of mental healthcare utilization among youth with mental disorders (i.e., depressive, substance use disorders, and comorbid disorders). The data were weighted using bootstrap weights based on the Canadian population of individuals aged 15 to 24 years to ensure accurate representation of the youth population. Intervention/Instrument: A series of sequential multinomial logistic regression analyses were conducted. Outcome measures: This study examined hours and types of mental health services consulted as outcome measures. Results: Results indicated that women were more likely to consult services from one type of professional (general practitioner or psychiatrist) than did men. Completion of high school only decreased the odds of consulting different types of professionals (e.g., general practitioner and psychologists) relative to completing higher education. Perceiving a need for care increased the odds of consulting services by 45%. In addition, living in urban areas was related to different type of services utilization.

Youth who had a family doctor were 2 times more likely to receive more hours of consultation than youth who did not have a family doctor. Findings demonstrated that 25% of youth with comorbid disorders received more hours of consultation, compared to 9% of youth with substance use disorders. Conclusion: This study used a nationally representative sample of youth to examine mental health services utilization, providing reliable population estimates of the contribution of individual and ecological determinants on mental healthcare use.

NL coaches knowledge regarding recognition of and response to sports related concussion in the adolescent

Wanda Emberley-Burke, Valda Duke, Robert Meadus, Andrea Barron

Context: Concussion, a common sports related injury is underreported by the adolescent but monitoring of subjective symptoms is essential to improve safety in sports and ensure positive outcomes if injury occurs. Concussive symptoms can interfere with group, schooling and family relationships. Repeated injury and long term risk of concussion on growth and development needs to be further explored.

The Centre for Disease Control and Prevention (CDC), Think First-Parachute Canada and the 4th Zurich Consensus statement have insisted that coach, athlete and parent education in concussion injuries is central to its early recognition and management and prevention of further associated complications, especially in the younger sports player. Objective: The aim of this study is to determine coaches' knowledge and recognition of concussion in the adolescent athlete population in the province of Newfoundland and Labrador. Design: Using a non-experimental design and convenience sample, coach knowledge was assessed with an instrument that was developed by Parachute Canada. The researchers obtained written permission from the author to utilize and modify this tool for use in this study. Participants: This study was conducted at all high schools and sports associations, in the province, where coaches are responsible in the coaching of adolescent junior high school and high school athletes for soccer, hockey and basketball Intervention/Instrument: The modified instrument is titled Sports Related Concussive Injury in the Adolescent Athlete Survey. Prior to commencement of data collection, the survey, as a data collection tool, was piloted with two class B coaches for readability, clarity, validity and content. Outcome measures: Newfoundland and Labrador (NL) still lags behind in any movement on legislation on sports related concussion. The outcomes of this research will contribute to the existing literature on coaches' concussion knowledge and return to play activities. Results: Results from this study indicated while 77% of respondents indicated the organization they coach with provides concussion education, and have policies regarding concussion education (73%), only 50% attended a concussion education session. This highlights the need for an increased awareness of knowledge transfer regarding concussions and concussion management to coaches of all levels as critical. Conclusion: Benefits gained through this research study will serve to facilitate sport policy changes, evaluate coaches' knowledge, improve standardized knowledge, and enhance adolescent education to encourage safe behaviors and the reporting of concussive symptoms.

Nurturing the Seeds of Children Mental Health. Engaging Mothers and Professionals to Make Perinatal Mental Health a Critical Item in Primary Healthcare

Martha Traverso-Yepez, Caroline Porr, Roger Chafe, Anne Drover, Brenda Olford, Clare Bessell, and Crystal Saunders-Milley

Context: Research indicates that maternal mental distress during prenatal and postnatal periods can negatively impact healthy child development and subsequent physical, mental, emotional and social well-being across the life course. Fetal and neonatal complications, social isolation and financial hardship are some of the untoward circumstances known to add unrelenting stress for some mothers that can interfere with the quality of mother-child

interaction. Healthy brain maturation during the early formative months and years relies on responsive caregiving and a nurturing, stimulating environment. Mothers suffering mental distress may lack the emotional resources to meet critical developmental needs. Our research goal with funding from NL SUPPORT– Patient-Oriented Research Grants, is to examine how to better assist perinatal mothers who are exhibiting signs of mental distress. Objective: 1) Exploring ways to identify mothers who may be developing mental health issues during pregnancy and early years of parenting and 2) Investigating opportunities to enhance perinatal mental health supports and services. Design: Our objectives are being met through a five-phase participatory research project that involves partnerships with mothers, professionals, agency representatives, government leaders and decision makers. Participants: For example, mothers and professionals are offering input and recommendations as members of the project's advisory committees. Community partnerships with Daybreak Parent Child Centre and Perinatal Program NL will be instrumental to our success. Intervention/Instrument: We have conducted an environmental scan on best practices to identify and assess mothers' undergoing mental upheavals. We have also identified existing provincial, regional, and non-governmental organizations providing supports and services for these mothers in NL. We are in the process of conducting interviews with professionals and mothers about their experience with these services. Results from the environmental scan will be shared with a broader audience of professionals and mothers to discuss the information accomplished and determine participants' level of agreement regarding potential ways to enhance these services using Q-sort method, either manually or through an electronic device. Outcome measures: Ultimately, we want to deliver a maternal-infant mental healthcare framework and action plan that can be rolled out across the province. Results: The poster highlights results from environmental scans of the literature and provincial programs and services and from preliminary meetings with mothers, professionals and other stakeholders. Conclusion: Funding agency has been instrumental in providing ongoing support for mobilizing partnerships to achieve our objectives and for ensuring sound dissemination activities among all knowledge users from professional providers to members of the general public. The strong emphasis on dissemination planning and implementation offers greater guarantees that our research results will be taken up in frontline practice.

Off the Beaten Path: Effect of a Research Training Program for Rural Doctors on Research Competency

Cameron MacLellan, Cheri Bethune, Wendy Graham, Thomas Heeley, Shabnam Asghari

Context: Rural doctors are trained to address healthcare needs in their communities but face barriers to identifying evidence-based solutions through scholarship given barriers like professional and geographical isolation. To address this issue, Memorial University of Newfoundland has implemented 6for6, a research-focused training program for Memorial-affiliated rural doctors. Objective: To determine the effectiveness of 6for6 in building research competency among rural doctors from 2014 to 2018 inclusive. Design: Quasi-experimental study. Participants: Since 2014, 6for6 has trained 24 practicing rural doctors. Intervention/Instrument: Throughout six sessions in one year, 6for6 guides six rural doctors along a journey to develop their community-relevant research questions. Through blended learning components (e.g. interactive lectures, writing activities) and dedicated research assistance and mentorship participants learn about scholarly writing, research methodology, and how to apply for ethics and grants. Outcome measures: Research competency as measured by participants' answers to survey questions about their knowledge, attitudes and skills vis-a-vis research. Results: This study is in progress. Conclusion: Rural doctors are vital to addressing community-relevant research questions and in turn improving patient-centered rural healthcare. This study will examine the importance of a research-focused training program in this equation.

Opioid Dependence Treatment in Primary Health Care- Access to Suboxone

Cassie Chisholm, Debbie Curtis, Cameron Campbell, Colleen Simms

Context: Suboxone has a six times greater safety profile than methadone in terms of overdose risk, and is strongly endorsed as a first line treatment in the management of opioid dependence. Suboxone is prescribed by physicians or nurse practitioners, according to their discipline's requirements for prescriber education, and dispensed by pharmacists as a sublingual tablet in a single daily dose. Unlike 'typical' drug dispensing procedures, in the early use of Suboxone for opioid dependence, the tablet is taken in the presence of a dispensing pharmacist and may require 1-10 min to completely dissolve. Pharmacies in some jurisdictions have operational concerns with the witnessed administration component of the Suboxone access pathway.

In many Canadian jurisdictions including Newfoundland and Labrador, Suboxone treatment is challenged by geographic coverage/access to the multi-step prescribe/dispense/administer process. Often, people requiring opioid replacement therapy do not have feasible access to one or more components of the access pathway. Patients may have a Suboxone prescription, but the nearest pharmacy where witnessed administration can take place is prohibitively far away, or not accepting new clients. Alternatively, a community pharmacy may dispense Suboxone but no local prescriber is available. As national and provincial incidence of opioid dependence rises, access to Suboxone is critical and steps are necessary to identify feasible pathways for patients to avail of treatment. Objective: Facilitate access to Suboxone treatment in opioid dependence. Target audience: Professionals working across the Primary Health Care (PHC) spectrum including: nurses, physicians, pharmacists, social workers, epidemiologists, dietitians, educators, physio/occupational therapists, administrators, policy makers, and individuals whose work relates to PHC. Description: A provincial working group is tasked with facilitating Suboxone access through enhancement of existing mechanisms and/or design and implementation of alternative pathways. Novel strategies involving collaborative PHC teams and emphasis on the evidence in Suboxone treatment will be leveraged. Evaluation: Geographic access, stakeholder feedback will be monitored as quality indicators. Conclusion: To realize full benefits of Suboxone treatment in PHC, system changes are required so that patients who may benefit from therapy have reasonable access.

Patan Academy of Health Sciences District Health System Rotation: Program Evaluation

Russell Dawe, Yagya Raj Pokharel, Karl Stobbe, Jill Allison, Shrijana Shrestha

Context: Nepal's Patan Academy of Health Sciences (PAHS) was established in 2008. PAHS offers a 5 year MBBS program, after which graduates may practice as medical officers or pursue a residency. PAHS aims to improve access to care for patients in rural and remote Nepal. PAHS has approximately 4 peripheral and/or rural district hospital sites at which their MBBS students spend 20 weeks as a service learning experience during their final year of the MBBS program. Objective: To determine whether the DHSR is being implemented as planned; To identify facilitators and challenges to implementation of the DHSR; To assess the quality of education provided during the DHSR; To assess the DHSR's impact on: (a) patient care in rural and remote Nepal, (b) graduates' clinical skill and confidence, (c) value graduates place on generalist primary care and public health, and (d) graduates comfort living and working in rural and remote Nepal. Design: Formative and summative program evaluation approach to assess the program's implementation and intended outcomes Participants: PAHS's students, faculty, and staff; and Canadian volunteer physicians involved in the program Intervention/Instrument: We will use both a formative and summative approach to assess the program's implementation and intended outcomes. Mixed methods will include an online survey of PAHS's students and Canadian volunteer physicians involved in the program; interviews with PAHS's graduates, faculty, and staff; and a scan of relevant documents and data. Outcome measures: To evaluate if the DHSR is being delivered as planned and to assess the DHSR's impact on its intended outcomes. Results:

Preliminary results may be available at time of conference. Conclusion: This program evaluation will present evidence regarding the performance and impact of this key component of PAHS's MBBS program and to identify opportunities to strengthen that performance.

Preliminary Analysis of Small Area Variation in High-Cost Hospital Use in Newfoundland and Labrador and Associated Predictive Factors

John Knight, Kris Aubrey-Bassler, Oliver Hurley

Context: Newfoundland and Labrador (NL) spends more per person on healthcare than any other province. Among the most promising approaches to address high healthcare costs are primary care reform and targeting high users of the health care system. Improving responsiveness of our primary care system to patient needs can help avoid more costly and unnecessary hospital and emergency department (ED) utilization for health conditions amenable to primary care. Objective: To examine small area variation (SARV) in high-cost hospital use in NL and investigate predictive factors. Design: Cross-sectional population-based linkage of secondary health administrative data and census data over a four-year period. Participants: All NL residents with at least one full year of continuous health insurance coverage between 2011/12 to 2014/15. Intervention/Instrument: Patient records from the MCP Beneficiary Registry were linked to hospital abstracts (NLCHI), physician claims (MCP), Physician and Medical Practice Database (MUN), and Census data (Statistics Canada). Information was extracted on region of residence, hospital cost and predictive factors including demographics, socio-economic characteristics and healthcare system characteristics. Information for 12 chronic illnesses was obtained from diagnostic codes using case definitions from the Canadian Chronic Disease Surveillance System and rates of high-cost hospital use (top 10%) were determined from the hospital data. Random effects modelling was used to identify factors predicting high-cost use using forward sortation area (based on first 3 digits of postal code) as the area of analysis. Geographic information system software (ArcGIS) was used to visualize regional SARV in high-cost use and examine effects of adjustment for disease rates and demographics. Outcome measures: High-cost hospital use Results: Significant variation was seen in rates of high-cost hospital use by geographic area across the province. Factors predicting high use in NL are presented with age and specific chronic illnesses being the strongest predictors. Maps are presented illustrating changes in estimated rates of high-cost use after adjusting for chronic diseases and demographics. Conclusion: Algorithms from this analysis can be used by researchers and decision-makers to identify areas with patients amenable to the primary healthcare interventions as well as to evaluate effects of interventions and future primary care reforms.

Prevalence and Risk Factors of ACOS (Asthma COPD Overlap Syndrome) in adult Aboriginal People.

Adetola Koleade, Gao Zhiwei, Farrell Jamie, Mugford Gerry

Context: Evidence suggests an overlap between Asthma and COPD, due to the increased difficulty in differentiating between them, especially at an older age leading us to a syndrome referred to as Asthma COPD Overlap Syndrome (ACOS). Objective: The main research objective is to investigate the burden and important risk factors of ACOS in Aboriginal people. Design: This is a cross-sectional survey research which made use of secondary data analysis. Participants: The 2012 Aboriginal Population Survey (APS) was used for this study. It was conducted by Statistics Canada from February to July 2012. The APS is a national household survey of Canadian aboriginal people with detailed information on their health and social economic conditions. A total of 28,410 Aboriginal respondents provided us with sufficient power for our statistical analysis. Intervention/Instrument: The data analysis was carried out using SAS 9.4. Mean (standard deviation) and count (frequency) were calculated for continuous and categorical variables, respectively. Univariate and multiple logistic regression with survey design weights were used to identify the significant risk factors of ACOS in the survey. A significance level of $p<0.05$ was applied in all cases. Outcome

measures: A respondent was considered to have ACOS if they responded yes to "Ever diagnosed with Asthma" and yes to "Ever diagnosed with COPD". Results: There was a good response rate of 76% among the Aboriginal respondents. The prevalence of asthma and COPD was 14.8% and 5.4% respectively, while the prevalence of ACOS was 2.7%. Based on literature, n = 27 variables were considered for this study, however, n = 14 variables were excluded due to high missing values. The remaining n = 13 variables were all significant (P<0.2) at the univariate analysis stage. Multiple logistic regression was carried out using the backward elimination technique. The following risk factors: age, sex, marital status, total income, province, type of smoker, owned or rented dwelling, dwelling in need of repairs, diabetes and number of paid hours per week were all significant (P<0.05). Conclusion: ACOS prevalence appears to be on the rise within aboriginal communities. The results from this study will provide valuable information to health care workers, patients and their families, indigenous governments/organizations and government agencies.

Primary care lifestyle interventions for type 2 diabetes prevention: A systematic review and meta-analysis of randomized controlled trials

Richard Buote, Cameron Maclellan

Context: Type 2 diabetes is among the most prevalent chronic diseases in the world. It has been well established that incidence of type 2 diabetes is associated with behavioural factors, such as inactivity, obesity, sedentary behaviour, and poor diet. Diet and physical activity (lifestyle) interventions have consistently been shown to reduce risk of type 2 diabetes. Challenges remain to implement these interventions into a real-world setting. Objective: To explore whether lifestyle interventions delivered in a primary care setting reduce the risk of developing type 2 diabetes in a high-risk population, as compared to usual care. Design: Systematic review and meta-analysis. Participants: Randomized controlled trials exploring the effectiveness of lifestyle interventions delivered in a primary care setting. Intervention/Instrument: PubMed, MEDLINE, Embase, and CINAHL were searched for randomized controlled trials of lifestyle interventions delivered in a primary care setting by primary care health care professionals among adults at risk of type 2 diabetes. Authors hand searched reference lists of relevant articles and previous reviews. Outcome measures: The primary outcome of interest was development of diabetes over the course of the trial. Results: In total, 1376 unique records were found. Records were most often excluded due to design, outcome, or setting. Following review, seven articles were included in the meta-analysis. Analysis showed that participants of the intervention group were 45% less likely to develop type 2 diabetes, as compared to participants of the usual care control group (OR = 0.55, 95% CI: 0.37; 0.81, p = 0.002). A sensitivity analysis was performed, removing studies at potential risk of bias. This had little impact on the results (OR = 0.50, 95% CI: 0.31; 0.81, p = 0.005). Conclusion: Lifestyle interventions delivered in a primary care setting can better prevent diabetes in a high-risk population as compared to usual care. Future studies should explore longer follow-up to determine whether the impact of these interventions is maintained over time.

Promoting Youth Mental Health and Well-Being Through a Community-Based Music Program

Stephen Darcy, Lisa Bishop, Brittany Howell, Hilary Power, Carole Bestvater, Amanda Pendergast, Susan Avery, Rob Sinnott, Norah Duggan

Context: When compared to those with high self-esteem, youth with low self-esteem are at risk for poorer mental health outcomes and higher criminal behaviour during adulthood. Music has been shown to promote self-esteem and thereby improve overall psychological well-being. Research on how a community-based extracurricular music program can be used in primary healthcare is fundamental in developing and evaluating new approaches for promoting self-esteem in youth. Objective: To assess the effect of the music program intervention on childhood self-esteem and childhood resilience; and to compare outcomes between the two different sites. Design: An in-person

survey was administered at the beginning and end of the intervention. Participants: Students aged 6-15 enrolled in the Strong Harbour Strings music program at two different communities within St. John's, along with their caregivers. Intervention/Instrument: Delivery of a community-based music program to youth in two communities within St. John's. The instruments used included the Stirling Children's Well-being Scale (for children) to assess self-esteem and the Child and Youth Resilience Measure (child and caregiver versions) to assess resilience. Outcome measures: The primary outcome measures being explored are childhood self-esteem and resilience. Secondary outcomes include child and caregiver satisfaction. Results: This research is currently in progress. The pre-test surveys were conducted and post-test surveys will be taking place in June. Conclusion: Conducting research that focuses on promoting mental health and wellness in youth and determining what types of prevention methods are effective is an important step in the development of preventative health strategies in primary healthcare. This study will add to the literature that focuses on the effects of extracurricular music instruction in youth and will give direction to effective strategies to engage and promote youth mental health through increased self-esteem and resilience. Implementing an innovative music program may be introduced in other communities as an alternative method of promoting mental health and wellness in youth.

Social Capital in Northern Canada: Healthcare Research Communities Examined

Thomas Heeley, Wendy Graham, Mehdee Araee, Cheri Bethune, Shabnam Asghari

Context: Healthcare research in Northern Newfoundland and Labrador (NL; Canada's Easternmost province) is under-supported but essential for addressing local healthcare needs. Memorial University of Newfoundland has taken decisive action to address these needs with Rural360, an incubator for socially accountable healthcare research in Northern NL. Rural360 fosters collaborations between remote physicians to create 'communities of research practice', but a social capital analysis has yet to be conducted on these networks. Objective: To analyze social capital in Northern NL communities of research practice. Design: Mixed methods study. Participants: Nine (9) physicians practicing in Northern NL. Intervention/Instrument: Rural360 Outcome measures: Thirty-two questionnaires measuring indices of social capital collected from 2014-2018, inclusive. Results: This is a research project in progress. We will use multiple regression analyses to analyze the impacts of research collaboration (financially and academically) on social capital components derived from the surveys. Qualitative survey responses will also be incorporated to cross-validate and triangulate the findings. Conclusion: Social capital is a key concept in social science and public health. Reflecting a 50-year social accountability commitment by the MUN Faculty of Medicine, Rural360 is building communities of research practice in Northern NL. We are analyzing social capital in these communities for the first time to elucidate the evolving field of healthcare research in Canada's North.

Substance Exposed Newborn: a retrospective chart review

Michael Hand, A Drover

Context: Substance use in pregnancy is increasing worldwide. More and more pregnancies are being complicated by use of substances such as opioids, marijuana, alcohol, cocaine and methadone. The Canadian Pediatric Society has made recommendations with respect to the care of the newborn who has been exposed to illicit substances. Objective: This study seeks to review the care that newborns born in a Newfoundland tertiary care facility who have been exposed to illicit substances have received and compare this to the standard set out by the Canadian Pediatric Society. Design: Newborns exposed to substances will be identified using log books on the postpartum unit and the NICU. Charts will then be retrieved and reviewed for factors regarding the hospital course of the newborn. This will include onset of symptoms consistent with neonatal abstinence syndrome, nonpharmacogic intervention, pharmacological intervention, discharge and follow up. Participants: All newborns born over the previous calendar year who have been identified as being exposed to illicit substances in utero. Intervention/Instrument: A data

extraction form will be created in input from all healthcare providers that are involved in the care of the newborn. Outcome measures: Outcome measures will include such factors as gestational age, birth weight, substances used in pregnancy and doasge, positive drug screens, initial postnatal course, age of onset of symptoms of withdrawal, treatments received, weight gain, length of stay, feeding method to name a few. Results: It is hoped that we can discover inconsistencies with the standard of care promoted by the Canadian pediatric scociety and identify areas of improvement in the care of the substance exposed newborn. Conclusion: With increasing numbers of newborns exposed to substances in utero it is imperative that health care professionals work together to provide the very best care possible for this high risk babies.

The development of professional identity in pre-clerkship medical students at Memorial University. An ethnographic case study

Jinelle Ramlackhansingh

Context: The professional behavior of physicians and medical students has recently received negative attention in Atlantic Canada. The concern is that unprofessional behaviour will ultimately lead to poor patient care. Objective: To determine the factors that influence the development of professional identity in pre-clerkship medical students. To determine how a hidden curriculum is manifested in Undergraduate Medical Education (UGME) at the pre-clerkship phase. Design: This ethnographic case study, follows the professional development of a group of participants in the pre-clerkship program at Memorial University over the first two years of their medical education (the "pre-clerkship" period). An ethnographic case study allows for a comprehensive examination of the lived experiences of the medical students. The research uses a post structuralist framework, relying heavily on the works of Pierre Bourdieu and Michel Foucault. The post structuralist framework enables us to scrutinise and question how ideas and actions are produced by dominant institutions. Data collection is being done using focus groups, observation of governance meetings and discourse analysis of publicly available Faculty of Medicine policies and procedures about professionalism. Participants: Four to 6 focus groups are taking place approximately every month over the course of two years. Each focus group has 4 to 6 volunteer participants. The total number of participants ranges from 16 to 36 each month. The volunteers are recruited from a single pre-clerkship class at Memorial University. Teaching faculty are invited to take part in individual interviews each semester. One focus group is done with administrative staff every semester Intervention/Instrument: None Outcome measures: This is a qualitative project looking to identify the factors which influence professional identity development in pre-clerkship medical students. Results: The factors which impact on medical student's professional identity as a physician will be determined. How and when the hidden curriculum is manifested at the pre-clerkship phase of medical school will be demonstrated. Conclusion: The impact of the UGME environment at the pre-clerkship level on professional identity development will be identified. This will help medical educators to develop professionalism pedagogy to support professional identity at the pre-clerkship level.

The Impact of Long-term SES on Health of Canadian Seniors

Courtney Abbott

Context: Socioeconomic status (SES) reflects one's social standing and is often considered a combination of income level, education, and employment status. SES has been shown to influence health outcomes across all age groups. Limited research exists investigating the relationship between SES and health of Canadian seniors who are predominantly affected by certain chronic conditions. Previous research from other provinces was cross-sectional and shed little light on SES trends over time. Objective: This project aims to investigate long-term SES in Canadian seniors and its determinants from a dynamic perspective. Design: This study uses the longitudinal data from the National Population Health Survey (NPHS, 1994-2011). Participants: The sample includes NPHS respondents

aged 50 years or older at baseline (1994/1995). Individuals with less than three reported income measures and those currently living away from home are excluded. Intervention/Instrument: NA Outcome measures: Latent-class growth modeling (LCGM) will be used to identify SES trajectories over the NPHS cycles. Multinomial logistic regression will be used to analyze the influence of associated health conditions as it related to SES group membership. Results: It is expected that four distinct SES trajectories will be identified: Low-stable SES (LS), High-stable SES (HS), Low-high SES (LH), and High-low SES (HL). Conclusion: It is crucial to tailor health care policy to include considerations for at-risk groups. Awareness of discrete SES trajectories and associated factors may allow for reorganization policy to improve health of the senior population.

The Key Domains of Behaviour that Are Impeding or Enhancing the Self-Management of Type 2 Diabetes using Theoretical Domains Framework

Taylor Wilson

Context: Type 2 diabetes is a critical health challenge in Newfoundland and Labrador (NL), as it is the province with the highest prevalence in Canada. In 2016, the Canadian Diabetes Association estimated that 179,000 residents in NL were living with diabetes or pre-diabetes, approximately 35% of our population. Patients living with T2DM find it challenging to make health and lifestyle choices that might reduce the adverse impacts associated with uncontrolled diabetes on their long-term health outcomes. Using a theoretical framework to identify barriers to, and facilitators of, diabetes self-management behaviors would assist the development of theory-informed patient interventions. The Theoretical Domains Framework synthesizes several behaviour change theories and outlines the key domains of behavior change for health interventions. Objective: To identify the key domains of the Theoretical Domains Framework that are impeding or enhancing healthy behavior related to the self-management of diabetes for subsequent use in developing an e-intervention. Design: Cross Sectional Survey. Participants: Patients enrolled in Eastern Health's Remote Monitoring Project for T2DM. Intervention/Instrument: A mail-out survey to identify the most significant barriers and facilitators associated with following a meal plan as set out by Eating Smart with Canada's Food Guide. Outcome measures: Fourteen theoretical domains (e.g., knowledge, social influence, skills) related to following a meal plan in the management of diabetes will be measured. Results: Patient engagement activities to date suggest that Social Influences, Knowledge, and Environmental Context and Resources will be the key domains of the Theoretical Domains Framework that hamper or encourage behavior related to following a meal plan in the management of T2DM. Conclusion: As the prevalence of T2DM continues to rise in NL, so does the need for intervention. Few behavior change interventions in the context of diabetes are informed by theory. This project will identify the significant domains of the Theoretical Domains Framework to be targeted by a subsequent e-intervention. Coupled with evidence-based behavior change techniques, these data will provide the foundation for a successful healthy eating intervention with people living with T2DM.

Validity and Feasibility of Facebook Advertising in Recruiting Participants for a Cross-Sectional Survey in Newfoundland and Labrador

Lance Shaver, Ahmed Khawer, Peizhong Peter Wang

Context: Epidemiological survey-research is being constrained by growing costs and dwindling response rates of traditional recruitment methods. Facebook has shown promise as a cost-effective recruitment tool for online health research; however, relatively few studies have been conducted in Canada, fewer still targeting older adults, and, to our knowledge, none specifically in Newfoundland and Labrador (NL). Objective: To assess the validity and feasibility of Facebook as a cost-effective means of recruiting a representative sample of adults in NL for a cross-sectional health survey. Design: Practice evaluation of research methods, specifically of using Facebook Advertising to recruit participants for an online cross-sectional survey on cancer awareness and lifestyle practices. Participants: Any

NL resident between the ages of 35 and 74 who has lived in NL for 2+ years is eligible. Intervention/Instrument: A Facebook Page was created as a public portal for the survey. Participants are being recruited to complete the online survey through age- and location-targeted Facebook Ads. The purpose-built questionnaire is administered using a free online survey tool and consists of 142-items (approx. 20 minutes in length) primarily compiled from validated instruments. Outcome measures: Validity will be determined by assessing if sociodemographic features (e.g., age, sex, income, education, urban/rural residence, BMI) of the Facebook-recruited sample are representative of the population (2016 Census). Feasibility and cost-effectiveness will look at Facebook Ad metrics (e.g., reach, impressions, link clicks), total participants, and cost-per-participant. Results: As this research is in progress, we hypothesize—based on evidence from other jurisdictions and on the growing use of Facebook among older adults—that our study will show Facebook recruitment is cost-effective in obtaining a representative sample of older Newfoundlanders. In addition, we will provide a detailed methodology and practice recommendations to guide future researchers on leveraging Facebook for recruitment. Conclusion: To address the aforementioned problems with traditional survey-recruitment methods, we are attempting to validate Facebook-recruitment in the Newfoundland context. This methodology could be applied to future health survey research and, by reducing resource-costs, could support evidence-informed decision-making by allowing governmental and community organizations to conduct rapid low-cost research on issues in the local context.

Vulvodynia: Addressing Patient Identified Gaps in Primary Care Provider Knowledge of a Condition with Significant Impact on Quality of Life

Krisztina Bajzak, Miller M, Webber V, Gustafson D, McIntyre A, Duggan N

Context: Vulvodynia is a complex pain condition that will affect 1 in 4 women. It is characterized by vulvar pain in the absence of a specific precipitating disorder, thus can be difficult to diagnose. Delayed diagnosis is common, with 60% of women consulting at least 3 physicians prior to diagnosis, and 40% remaining undiagnosed after these consultations. Vulvodynia negatively impacts a woman's quality of life, sexual functioning and mental health. Early diagnosis and treatment can reduce negative outcomes associated with delayed or protracted treatment. In a qualitative study of women with the condition in Newfoundland & Labrador (NL), women reported many healthcare practitioners, including primary care providers (PCPs: family doctors and nurse practitioners) seemed to have gaps in essential knowledge of this condition. This is consistent with published literature. Objective: We propose a case study to investigate this knowledge gap from the perspective of PCPs, and explore how PCPs would like to receive information that addresses this gap. Design: This is a qualitative study, using a needs assessment approach. Participants: Approximately 20 PCPs in NL, having diverse practice types and geographic locations. Intervention/Instrument: Semi-structured focus groups and individual interviews with intake surveys. Outcome measures: The primary outcome is to understand the learning needs of PCPs in NL related to vulvodynia. Results: The intake survey will collect demographic information and data regarding PCPs' knowledge and attitudes about vulvodynia. Understanding the learning needs of PCPs is best achieved using open-ended data-gathering. Focus groups generate discussion among individuals with different experiences and are ideal for cataloguing the range and variety of responses to this problem. Individual interviews allow for a more in-depth account of knowledge, attitudes and practices, providing an opportunity to pursue specific concerns with greater detail and nuance. Transcripts of these interviews will be analyzed to identify themes. Conclusion: Using the information collected in this study, we plan to develop and assess the effectiveness of educational resources about vulvodynia diagnosis, treatment modalities, and available specialist care services in NL that addresses PCP learning needs. This has the potential to drastically improve the quality of life for women living with vulvodynia and increase health care provider empowerment in managing this challenging condition.

What are the areas for physiotherapy service improvement for low back pain

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Context: Patients with low back pain (LBP)>3months can be referred for outpatient physiotherapy at Eastern Health, NL and currently account for at least 30% of all physiotherapy-referrals. Current service includes a 2hr-education session defining LBP, what makes it better/worse and what physiotherapy can do to help; followed by the option to proceed with one-to-one treatment. Our previous study of patient expectations and audit of patient's baseline symptoms suggest that this service may not be meeting patient expectations and may be suboptimal to address bio-psychosocial symptoms. Objective: To determine the specific areas for improvement in physiotherapy treatment for LBP. Design: A cross-sectional study. Participants: Physiotherapists employed by Eastern Health who treat patients with LBP. Intervention/Instrument: An online survey was administered to all physiotherapists in Eastern Health in September 2017. Outcome measures: The survey was adapted from 3 similar surveys and included a combination of single item questions and patient case-study vignettes to identify treatment practices and preferences. Results: A total of 76 physiotherapists responded to the survey (84% response rate). All physiotherapists correctly screen for serious pathology and use a range of appropriate physical modalities. While almost all physiotherapists agreed that their patients would benefit from strategies to address symptoms of anxiety, worry or fear related to back pain, few had received formal training or felt confident to provide LBP-specific education or treatment based on a bio-psychosocial approach. Interestingly, although supervised-exercise is a core component of best-practice for this patient group, it was reported to be used infrequently; possibly due to space/time restrictions. Additionally, the amount of advised physical-activity for case-study vignettes was inconsistent, suggesting further education on this topic could be useful. Conclusion: Current international guidelines have long recommended that treatment for LBP>3months should include education and exercise using a bio-psychosocial approach. However, it is also well known that little attention has been given to developing methods to support physiotherapists implement this recommendation in practice. Thus, adoption of this approach remains ad-hoc around the world. The results of this study have allowed physiotherapists in Eastern Health to consider service options to meet the needs of their physiotherapists and patients.

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