

# prifor 2014

THE PRIMARY HEALTHCARE PARTNERSHIP FORUM

## Innovating and Integrating Healthcare

Sheraton Hotel Newfoundland • St. John's, NL • Sept. 4–5, 2014



## Program & Abstracts

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## Welcome messages

### Dean of Medicine



Welcome to PriFor 2014, the sixth annual Primary Healthcare Partnership Forum. Primary healthcare in Canada is in a period of change and the theme of this year's forum, Innovating and Integrating Healthcare, encompasses many topics related to this transformation. This is so important as we strive to provide the most effective healthcare for the people of Newfoundland and Labrador and beyond.

From maternity healthcare services to building capacity in medical education professional development, PriFor 2014 offers sessions and posters that deal with innovations in healthcare delivery and knowledge translation. PriFor provides a setting for professionals across a variety of disciplines who have an interest in primary healthcare to come together to share their research findings, ideas, and questions in a spirit of collaboration. Working together, we can facilitate primary healthcare research, and this will ultimately improve primary healthcare delivery locally, regionally, and nationally.

By bringing professionals in different disciplines together, PriFor facilitates networking and lively discussion. I wish you all the best in your discussions—I know they will be energetic and informative.

I hope you enjoy the conference and I look forward to seeing you back again for PriFor 2015.

*Dr. James Rourke*

### Vice Dean of Medicine



Welcome to the sixth annual Primary Healthcare Partnership Forum. PriFor provides a venue for professionals across a variety of disciplines who have an interest in primary healthcare to come together to share their research findings, ideas and questions in a spirit of collaboration.

As a developmental pediatrician with a special interest in autism, I know how important it is to work with a team to improve primary healthcare delivery and facilitate primary healthcare research. A sufficient supply of healthcare professionals, including physicians, is certainly a key component of primary health care. However, primary healthcare reform involves fundamental changes to the organization and delivery of health services and there is a growing consensus about the potential for team-based care to provide comprehensive prevention and treatment services which, in turn, will result in improved health.

Primary healthcare reform offers the opportunity for healthcare providers to specialize in their individual scopes of practice within a supportive team environment. It is about supplementing, rather than replacing, physician services in order to provide more comprehensive care. This includes a greater focus on health promotion and illness prevention, and enhanced follow-up and active management of chronic diseases to avoid or minimize complications.

PriFor 2014 offers the opportunity to network with professionals in different disciplines who have similar interests. I wish you the best over the next two days and in the future as the Primary Healthcare Research Unit, in partnership with the Atlantic Practice Based Research Network and the Centre for Rural Health Studies, continues the work involved in primary healthcare innovation.

*Dr. Cathy Vardy*

## Welcome messages

### Chair of Family Medicine

MUN's Discipline of Family Medicine is very proud of the work of the PHRU and its staff. Under the leadership of Dr. Godwin, the discipline's research director, the PHRU has grown, our research and scholarship has grown, and we are very cognizant of impact of this work. PriFor is an amazing concept for NL, bringing together researchers, policy and decision-makers, clinicians, graduate students and residents, as well as others. Learning from each other and researchers across the country can be critical to our future success in healthcare. PriFor is a great venue to achieve this interaction.

Primary care is at a crossroads in NL and renewal is imminent. I cannot think of a better theme for this year's conference—]Innovating and Integrating Healthcare. It is the perfect time, place and space to come together and explore and share our work and our thoughts on this highly relevant topic. My congratulations and thanks to the entire PHRU team. I am confident this will be a great experience for all, and a wonderful opportunity to learn, share, and network. I want to welcome everyone to this year's conference and am happy to bring greetings from the Discipline of Family Medicine.

*Dr. Cathy MacLean*



### Director of the Primary Healthcare Research Unit

It is with great pleasure that I welcome you to PriFor 2014! This year we continue our tradition of providing a space to highlight the research and scholarly work happening in this province and across the country. Indeed, PriFor has become an established forum where researchers, policy makers, and clinicians meet to share their work, ideas, and visions for the future of primary healthcare.

The theme for this year's PriFor, Innovating and Integrating Healthcare, is a testament to the growing interest in and necessity for reform of primary healthcare. Evidence worldwide tells us that health systems with a strong foundation in primary healthcare are the most effective and efficient. It is also widely recognized that many systems of primary healthcare are in need of reform. In order to be truly responsive to the needs of patients and the larger health system in which they operate.

It is my hope that the work that is presented here and the speakers we have invited to present at our plenaries will stimulate discussion and the development working relationships centered on innovating and integrating healthcare and related topics.

Please enjoy the conference.

*Dr. Marshall Godwin*



## Welcome messages

### Director of the Centre for Rural Health Studies



Welcome to the Primary Healthcare Partnership Forum. This is the sixth year that this event has brought together practitioners, researchers, administrators, and policy makers from across Atlantic Canada and beyond to share their knowledge and experiences in primary care or to learn about the work of others. Together, we will explore diverse health issues including maternal health services, vulnerable populations, healthcare inequities, and chronic disease, as well as professional topics including medical education, professional development, capacity building, and knowledge translation.

2014 has been an exciting year for Primary Healthcare Research at the Centre for Rural Health Studies. The launch of the Newfoundland and Labrador SPOR Network has broadened the reach of our research by bringing together a team of fifty multidisciplinary researchers, clinicians, and key healthcare policy makers. This year's PriFor theme, Innovating and Integrating Healthcare, aligns nicely with the mandate of the SPOR Network, and will likely generate many fascinating ideas and concepts and foster network relations.

As in previous years, we are lucky to have various speakers, some of whom have travelled across the country, for our plenary talks, and a host of presenters for our concurrent sessions. These individuals will teach us about what has been going on in their areas of expertise within the broader realm of primary healthcare. I hope that these sessions will play an integral role in shaping the best system of healthcare for Newfoundland and Labrador.

Thank you all for joining us and for helping to make PriFor a success. We look forward to seeing you back in the future!

*Dr. Kris Aubrey-Bassler*

### PriFor Planning Committee



Greetings, and welcome to PriFor 2014!

On behalf of the PriFor Planning Committee for the sixth annual PriFor conference, I am delighted to welcome you to this event. The annual PriFor conference provides a welcoming and supportive environment where primary healthcare researchers, especially those who work in rural and remote areas, can get acquainted with one another and share their experiences.

The committee has made every effort to ensure the success of this conference and we are delighted with the quality of the submissions and the keynote speakers who will share their wisdom with us. We also look forward to the Dangerous Ideas Soapbox, which concludes day one of the conference on Thursday afternoon.

This conference is an excellent opportunity to meet with front-line healthcare practitioners, researchers, academics and decision makers to share your points of view. It creates an opportunity for networking, collaboration and for the building of trust relationships.

We look forward to meeting you in person; this conference promises to be a most interesting and enjoyable event!

*Dr. Shabnam Asghari*

## Highlights and key points

- Thank you to our sponsors; please visit their booths in Salon A.
- The conference starts with registration and continental breakfast at 7:30 a.m. on Thursday. Breakfast will be served in Salon A on both days. Friday is a hot breakfast, which starts at 8 a.m.; seating is available in the pre-function area.
- Breaks are in Salon A with the posters and exhibitors.
- Lunch will be served in Salon A, with seating in the pre-function area. The award for Primary Healthcare Researcher of the Year will be presented to Dr. Michael Jong during lunch on Friday.
- **Posters:** There are two full-day poster sessions. Those presenting posters should have them up on their designated board in Salon A by 8:30 a.m. Presenters are asked to stand by their posters during the designated time (9:45–10:30 a.m. each day).
- **Oral presentations/workshops:** There are three rooms with presentations/workshops running concurrently on each day. The rooms are Salons B, C, and D. All presenters should have received a letter indicating the room and time of their presentation. Please give your presentation (on USB flash drive or CD/DVD) 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 four keynote addresses in Salon B:
  - On Thursday morning, Dr. Robert Greenwood, executive director of Memorial University's office of public engagement and of the Harris Centre, will talk about his experience with public engagement in research and its translation into involving patients/participants in health research.
  - On Thursday afternoon, Dr. Robyn Tamblyn, scientific director of the clinical and health informatics research group at McGill, will speak about patient-oriented research and optimizing intersectoral components of care.
  - On Friday morning, Dr. Jude Kornelsen, co-director of the Centre for Rural Health Research at UBC, will discuss her work in the area of rural maternity care, and sustaining services in this area.
  - On Friday afternoon, Dr. Brenda Hefford, executive director, practice support and quality, of the Doctors of BC, will share her experiences with the inception and establishment of Divisions of Family Practice in BC, community-based networks of family physicians.
- The penultimate event of day one of the conference on Thursday afternoon is the **Dangerous Ideas Soapbox** in Salon B. We are excited to try this for the first time this year; see page 10 for more details.
- For family physicians who have registered for it, the BETTER Program is hosting a workshop in the Garrison/Signal Room after lunch on Thursday. See page 11 for details.
- **Cocktail reception:** On Thursday, at the end of the afternoon sessions for the first day, there will be a cocktail reception for all registrants. This runs from 4–6 p.m., and will be held in the Court Garden. Set to relaxing live entertainment, delicious hot and cold hors-d'oeuvres will be served, and a complimentary beverage provided. This event offers a great chance to unwind and converse with your fellow conference attendees.
- **As an accredited provider, Professional Development and Conferencing Services, Faculty of Medicine, Memorial University of Newfoundland designates this continuing medical activity for Mainpro-M1 credit hours of the College of Family Physicians of Canada. The number of credit hours is to be determined and will be announced during the conference.**
- Please feel free to approach any of the conference staff if you need help. They will be wearing **RED** name tags.

## Plenary sessions

Thursday morning, Sept. 4

Room: **Salon B**

8:45–9:45 a.m.

Monitor: **Oliver Hurley**

### Lessons in Public Engagement and Knowledge Mobilization: The Harris Centre Experience

**Dr. Robert Greenwood**



Rob is executive director of the office of public engagement for Memorial University and of The Leslie Harris Centre of Regional Policy and Development. He is lead on the Public Engagement Framework for the university, which coordinates and supports the university's collaboration with partners and stakeholders. The Harris Centre's mandate is to coordinate and facilitate Memorial University's educational, research and outreach activities in the areas of regional development and public policy.

Rob has operated his own consulting business and has served as director and assistant deputy minister of policy in economic development departments in Newfoundland and Labrador and in Saskatchewan. He was vice president, corporate development of the Information Services Corporation of Saskatchewan, and was founding director of the Sustainable Communities Initiative, a partnership of the University of Regina, the City of Regina, and the National Research Council of Canada.

Rob holds a PhD in Industrial and Business Studies from the University of Warwick, England, which he attended as a Commonwealth Scholar.

## Plenary sessions

Thursday afternoon, Sept. 4

Room: **Salon B**

1:30–2:30 p.m.

Monitor: **Krystal Pike**

### Building the Foundations for Health System Transformation and Primary Care Research in Canada

#### Dr. Robyn Tamblyn

Dr. Robyn Tamblyn is a professor in the department of medicine and the department of epidemiology and biostatistics at McGill University. She is a James McGill Chair, a medical scientist at the McGill University Health Center Research Institute, and the scientific director of the clinical and health informatics research group at McGill University.

Dr. Tamblyn's ground-breaking research on educational outcomes has elucidated important relationships between health professional training, licensure and practice, which have subsequently guided credentialing policies. Her work on prescription drug use, its determinants, and computerized interventions to improve drug safety (MOXXI) have been recognized internationally. She leads a CIHR-funded team to investigate the use of e-health technologies to support integrated care for chronic disease, and co-leads a Canadian Foundation for Innovation Informatics Laboratory to create advanced technologies to monitor adverse events in populations and create new tools to improve the safety and effectiveness of health care.

Her work is published in the Journal of the American Medical Association, the Annals of Internal Medicine, the British Medical Journal, Medical Care, and Health Services Research, among others. She has been awarded the CHSRF KT award for her research in improving the use of medication as well as the ACFAS Bombardier award for innovation in the development of a computerized drug management system.





## Plenary sessions

Friday morning, Sept. 5

Room: Salon B

8:45–9:45 a.m.

Monitor: **Sara O'Reilly**

### Sustaining Rural Maternity Services: Building on Innovation

**Dr. Jude Kornelsen**



Dr. Jude Kornelsen is an assistant professor in the department of family medicine and co-director of the Centre for Rural Health Research at the University of British Columbia. Her research is generally in the area of obstetrical healthcare and its crossover with rural health services. Her primary research focus involves rural maternal health issues, including the emergence and integration of midwifery in our health care system. Other research interests include rural health service delivery, women and care provider experiences, and maternal and newborn outcomes.

Dr. Kornelsen works toward creating productive research environments and coordinates and oversees student positions. She has undertaken numerous funded studies on rural women's experiences of care and additionally directs a program of research into the emerging social phenomenon of elective cesarean section.

Dr. Kornelsen is a former CIHR New Investigator, a Michael Smith Foundation for Health Research Scholar, and an Honorary Associate Professor at the University of Sydney.

## Plenary sessions

Friday afternoon, Sept. 5

Room: **Salon B**

1:15–2:15 p.m.

Monitor: **Jacqueline Fortier**

### Better Together: Community GP Networks Dr. Brenda Hefford

Dr. Brenda Hefford has been working as a family doctor in White Rock, British Columbia for over 23 years. In addition, she has been active in various primary care leadership roles in her community and province. She has been a board member of White Rock-South Surrey Division of Family Practice since its inception in 2009 (one of the first three divisions in the province). As physician executive lead of primary care development for Fraser Health Authority from February 2009 to January 2011, she helped to establish family practice divisions in other areas of the health authority and province (there are currently 34). She has provided local and provincial leadership of the “A GP for Me” initiative and until recently served as a member of the provincial General Practice Services Committee (GPSC), a collaborative committee of the medical association and ministry of health.

Currently, she holds a senior leadership role in the Doctors of BC as executive director, practice support and quality. This department provides support and resources to the GPSC, which supports BC doctors by developing and implementing programs that improve job satisfaction for family physicians and primary health care for patients.

Previously, she served as the medical director of Peace Arch Hospital in White Rock from 2006 to 2009. She was one of six founding physicians of the Peace Arch Maternity Clinic—a thriving primary care maternity clinic established in 2000.

She graduated from Memorial University of Newfoundland in 1986, and after a brief stint in New Zealand, she and her husband settled in White Rock in 1991. She has two children; her daughter completed a music degree at Memorial in 2012, and her son is currently studying sciences at the University of British Columbia.



# Dangerous Ideas Soapbox

Thursday, Sept. 4

Room: **Salon B**

2:45–4:15 p.m.

Monitor: **Andrea Pike**

Dangerous ideas are controversial or revolutionary notions that encourage us to think about the way we currently do things from new angles, or stir us to explore altogether new approaches to addressing the problems faced in health-care. They may instigate the creation of new paradigms or even stimulate rebellion, but they must all demonstrate creativity and the kind of blue sky thinking that will allow us to grow our field.

This session, modelled on similar and wildly popular sessions offered by the UK's Society of Academic Primary Care and the College of Family Physicians of Canada offers PriFor participants an opportunity to share an important, innovative idea that hasn't been heard or practiced in the healthcare community.

Each speaker will be given five minutes to present their idea. Audience members will then have 10 minutes to ask questions and critique or challenge your idea, with a final vote to decide the most potent of the dangerous ideas presented.

# BETTER Mainpro-C Workshop

Thursday, Sept. 4

Room: **Garrison/Signal**

1:30–4:30 p.m.

Monitor: **Ricky Cullen**

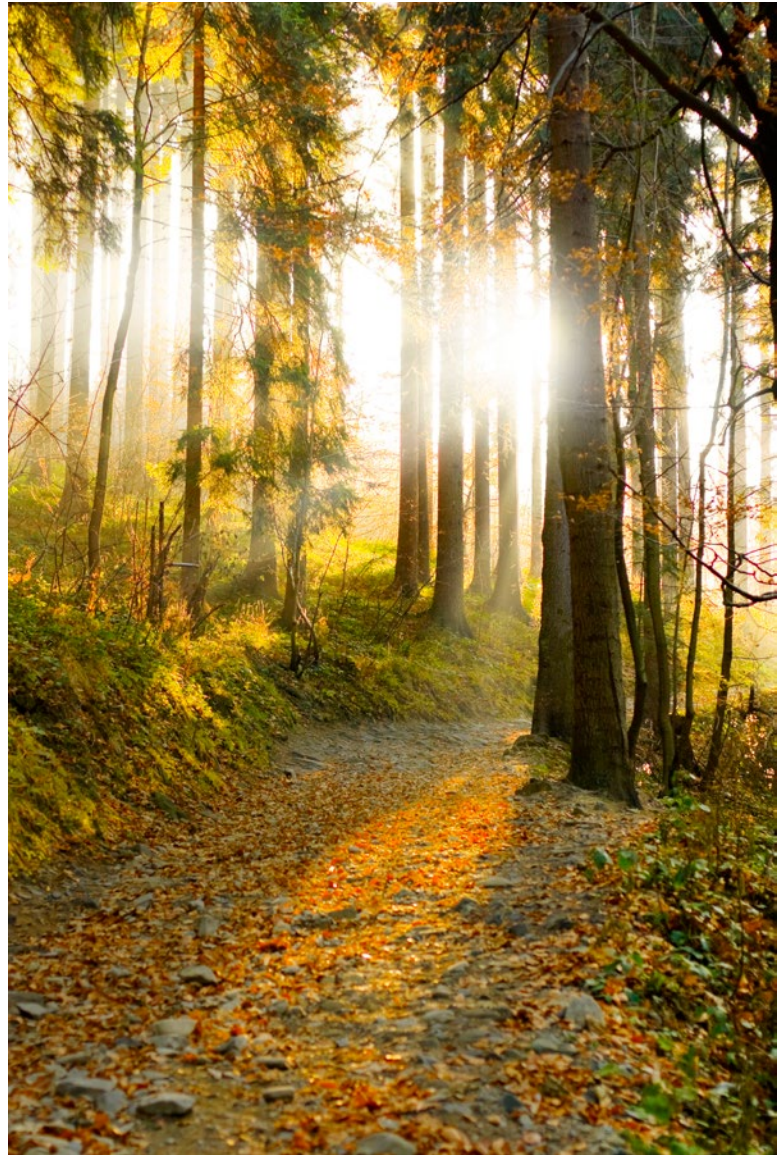
## Learning Objectives:

- Develop an understanding of the BETTER approach to chronic disease prevention and screening and how it can be adapted.
- Decide how to approach and improve prevention and screening in your practice, including how you will target at-risk patients.
- Learn about outcome measures that can be used to monitor and evaluate prevention and screening activities in your practice.

Primary care is the ideal setting for Chronic Disease Prevention and Screening (CDPS); however, evidence-based approaches are inconsistently applied and family physicians lack the time to adequately address CDPS.

The original BETTER project demonstrated that introducing a new provider role, a Prevention Practitioner (PP), significantly improved prevention and screening in patients aged 40–65 as measured by a summary quality index. The PP is an individual within the family practice setting who is taught specialized skills in CDPS.

The BETTER approach: 1) is personalized to the patient and the practice, 2) addresses multiple conditions (cancers, diabetes, cardiovascular disease and associated lifestyle factors), 3) is integrated with local, regional and national resources, and 4) is longitudinal assessing patients over time. Through group discussions, participants in this Mainpro-C session will explore how they can adapt this new and effective approach to their primary care settings. The resources and tools that have been developed to support this approach will be shared.



# Conference agenda

Thursday

Thursday, Sept. 4			
7:30–8:30 a.m.	Registration & continental breakfast Salon A		
8:30–8:45 a.m.	Welcome & opening remarks Salon B		
8:45–9:45 a.m.	<b>“Lessons in Public Engagement and Knowledge Mobilization: The Harris Centre Experience”</b> Robert Greenwood Salon B		
9:45–10:30 a.m.	Research poster viewing/Exhibitor viewing/Refreshment break Salon A		
10:30 a.m.–12:30 p.m.	Maternity Healthcare Services Salon B	Innovations in Healthcare Delivery Salon C	Patient’s Medical Home Workshop Salon D
	Health Promotion Salon B		
12:30 p.m.–1:30 p.m.	Lunch Salon A		
1:30–2:30 p.m.	<b>“Building the Foundations for Health System Transformation and Primary Care Research in Canada”</b> Robyn Tamblyn Salon B		BETTER Mainpro-C Workshop Garrison/Signal
2:30–2:45 p.m.	Break		
2:45–4:30 p.m.	<b>Dangerous Ideas Soapbox</b> Salon B		
4:30–6 p.m.	Cocktail reception Court garden		

# Conference agenda

Friday

Friday, Sept. 5			
8–8:45 a.m.	Hot breakfast Salon A		
8:45–9:45 a.m.	<b>“Sustaining Rural Maternity Services: Building on Innovation”</b> Jude Kornelsen Salon B		
9:45–10:30 a.m.	Research poster viewing/Exhibitor viewing/Refreshment break Salon A		
10:30 a.m.–12:10 p.m.	Variety Pack Salon B	Medical Education/ Professional Development Capacity Building Salon C	Knowledge Translation Workshop Salon D
12:10–1:15 p.m.	Lunch Salon A		
1:15–2:15 p.m.	<b>“Better Together: Community GP Networks”</b> Brenda Hefford Salon B		
2:15–2:30 p.m.	Break		
2:30–4:30 p.m.	Vulnerable Populations and Healthcare Inequities Salon B	Chronic Disease Variety Pack Salon C	
4:30 p.m.	Conference adjourns		

## Sessions in detail

Thursday morning

### Maternity Healthcare Services/Health Promotion

<b>Room:</b> Salon B	<b>Facilitator:</b> Leslie Rourke	<b>Monitor:</b> Shannon Fisher
10:30 a.m.	Rural Midwifery in BC: Towards Solving the Maternity Care Gap	Jude Kornelsen See abstract on page 32
10:50 a.m.	Delivery By Family Doctors Versus Specialist Obstetricians: A Population-Based Retrospective Cohort Study of Canadian Births	Kris Aubrey-Bassler See abstract on page 22
11:10 a.m.	Patient-Centred Maternity Care with Collaboration Between Primary Care and Consultant Physicians of the Women's Health Network in Central NL	Steven Parsons See abstract on page 30
11:30 a.m.	Trying to Stem the Tide of Chronic Disease: A Proposal For An Upstream Intervention	Bo Miedema See abstract on page 37
11:50 a.m.	Food and Fun Camp: Evaluating the Impact	Jill Wheaton See abstract on page 25

### Innovations in Healthcare Delivery

<b>Room:</b> Salon C	<b>Facilitator:</b> Gary Tarrant	<b>Monitor:</b> Jacqueline Fortier
10:30 a.m.	Telegerontology Pilot Project App Development and Results with Skype Communication to Caregivers of Patients with Dementia in Rural Newfoundland	Roger Butler See abstract on page 33
10:50 a.m.	Strongest Families: Using the Internet to Deliver Child Mental Health Services	April Schwanz See abstract on page 32
11:10 a.m.	From Evidence to Actionable Clinical Practice Guidelines: Translation and Implementation of the BETTER 2 Program	Carolina Aguilar See abstract on page 25
11:30 a.m.	Referral and Consultation Process Toolbox	Kelly Higdon See abstract on page 31
11:50 a.m.	Changes in Registration Process to Improve Outcomes For Patients Presenting with Acute Myocardial Infarction (AMI)	Nadine Roberts See abstract on page 21
12:10 p.m.	A Case Study Examining the Impact of Community Music Therapy in Increasing Participant Well-Being	C. Jane Gosine See abstract on page 19

### Patient's Medical Home Workshop

<b>Room:</b> Salon D	<b>Monitor:</b> Nicole Shear
10:30 a.m.	The Patient's Medical Home - For Research and Education Cathy MacLean See abstract on page 38

## Sessions in detail

Friday morning

### Variety Pack

<b>Room:</b> <b>Salon B</b>	<b>Facilitator:</b> <b>Gary Tarrant</b>	<b>Monitor:</b> <b>Oliver Hurley</b>
10:30 a.m.	Embodying a New Meaning of Being at-Risk For Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC): the Newfoundland Story	April Manuel See abstract on page 24
10:50 a.m.	NL Obstetrical Unit Compliance with the BFI	Anne Drover See abstract on page 30
11:10 a.m.	A GP For Me Program in British Columbia	Brenda Hefford See abstract on page 20
11:30 a.m.	Networking and Systemic Responses to Deal with Children's Adverse Experiences	Martha Traverso-Yeppez See abstract on page 29
11:50 a.m.	The Impact of Social Desirability On Self-Reported Improvements in Fruit and Vegetable Consumption	Nour Redding See abstract on page 36

### Medical Education/Professional Development Capacity Building

<b>Room:</b> <b>Salon C</b>	<b>Facilitator:</b> <b>Cathy MacLean</b>	<b>Monitor:</b> <b>Nicole Shea</b>
10:30 a.m.	The 6 for 6 Program: A Research Skills Program For Rural and Remote Family Medicine Faculty	Wendy Graham See abstract on page 33
10:50 a.m.	Transdisciplinary Understanding and Training On Research-Primary Health Care (TUTOR-PHC)	Julie Matthews See abstract on page 36
11:10 a.m.	The Atlantic Mentorship Network - Pain and Addiction	Peter MacDougall See abstract on page 34
11:30 a.m.	Developing a Psychotherapy Training Program for Psychiatry Residents at Memorial University	Grigore Radu See abstract on page 22
11:50 a.m.	Development of a Primary Care Obstetrics Teaching Program at a Tertiary Care Centre: Challenges and Opportunities	Norah Duggan See abstract on page 23

### Knowledge Translation Workshop

<b>Room:</b> <b>Salon D</b>	<b>Monitor:</b> <b>Sara O'Reilly</b>
10:30 a.m.	Knowledge Translation Workshop Jude Kornelsen See abstract on page 38



## Sessions in detail

Friday afternoon

### Vulnerable Populations and Healthcare Inequities

<b>Room:</b> <b>Salon B</b>	<b>Facilitator:</b> <b>Pauline Duke</b>	<b>Monitor:</b> <b>Jacques Van Wijk</b>
2:30 p.m.	Many Voices, One Community: Investigating the Perceptions of Youth Mental Health and Substance Use in a Small Urban Community	Lisa Bishop/ Stephen Darcy See abstract on page 29
2:50 p.m.	Working with Vulnerable Populations	Barbara Albrechtsons See abstract on page 37
3:10 p.m.	Integrating Chiropractic Services in a Primary Care Setting For Marginalized Populations	Darrell Wade See abstract on page 28
3:30 p.m.	Incorporating Health Equity Within the Health Agenda in NL	Martha Traverso-Yeppez See abstract on page 27

### Chronic Disease Variety Pack

<b>Room:</b> <b>Salon C</b>	<b>Facilitator:</b> <b>Greg Sherman</b>	<b>Monitor:</b> <b>Ricky Cullen</b>
2:30 p.m.	Differences in Health and Lifestyle Behaviors Between Males and Females Aging with Multiple Sclerosis	Michelle Ploughman See abstract on page 24
2:50 p.m.	A Proof of Concept Study Utilizing Electronic Medical Record (EMR) Data: The Relationship of Obesity with Chronic Illness and Health Care Utilization	John Knight See abstract on page 21
3:10 p.m.	The Impact of Comorbid Conditions Among Older People with Multiple Sclerosis On Disability Health Related Quality of Life and Participation in Life Roles	Michelle Ploughman See abstract on page 35
3:30 p.m.	Improving Self-Management Support Within Diabetes Teams	Darla King See abstract on page 26
3:50 p.m.	A Comparison of Newfoundlanders Lipid Profiles with the Rest of Canada: Findings From Canadian Primary Care Sentinel Surveillance Network Data	Erfan Aref-Eshghi See abstract on page 19
4:10 p.m.	Incretin-Based Medications for Type 2 Diabetes: An Overview of Systematic Reviews	John-Michael Gamble See abstract on page 27

# Poster presentations

Thursday

Room: Salon A

Monitors: Andrea Pike / Jacques Van Wijk

1	Exploring Pharmacists' Expectations of Competent Family Physicians	Katherine Stringer See abstract on page 44
2	Evaluating an Interprofessional Education Workshop on Mood Disorders for Community Counselors	Grigore Radu See abstract on page 43
3	A Qualitative Approach to Exploring Barriers and Facilitators in Access to Child and Youth Eating Disorders Services in Newfoundland and Labrador	Michael Bartellas See abstract on page 38
4	Psychosocial Aspects of Living with the Risk of Sudden Death Due to ARVC: Genetic Testing Decisions	Holly Etchegary See abstract on page 49
5	What Primary Healthcare Professionals Can Do to Better Support Men and Women Post-Pregnancy Loss	Crystal Northcott See abstract on page 53
6	Medication Management By Community Pharmacists Among NL Prescription Drug Program Clients	Carla Dillon See abstract on page 46
7	The Impact of Food Labels: An Investigation of Food Label Usage and its Possible Association with an Unhealthy Preoccupation or Obsession with Eating Healthy Food in a Sample of Young Adults in Eastern Newfoundland	Kielyn Jenkins See abstract on page 50
8	Professional Over-the-Phone Interpretation to Improve the Quality of Primary Care For Migrants: A Feasibility Study	Emily Parkinson See abstract on page 48
9	Refugee Health: An Examination of Interim Federal Health Program in St. Johns Newfoundland	Christopher Olsen See abstract on page 49
10	An Electronic Diary For Adolescents and Young Adults with Headaches: Evaluation of Its Feasibility and Psychometric Properties	Cathy MacLean See abstract on page 41
11	Perception of People Living with HIV On Access to Healthcare: Protocol of Search For a Scoping Review.	Hilary Modir See abstract on page 46
12	Examination of the Effects of Primary Healthcare Reform Using Health Administrative Data	John Knight See abstract on page 44
13	Advancing Primary Healthcare For Persons Living with HIV in Canada	Shabnam Asghari See abstract on page 41

# Poster presentations

Friday

Room: Salon A

Monitors: Shannon Fisher / Krystal Pike

1	Male Motivations to Study a Formal Education in the Occupational Therapy Field	Patrick Whalen See abstract on page 45
2	Diabetes Complications and Comorbidities in Patients Newly Diagnosed with Diabetes in NL: Gender Differences	Richa Parihar See abstract on page 43
3	Pluralistic Healing in Canada: Perspectives of Indigenous Health Experts and Scholars On Integrated Healing	Christine Shearer See abstract on page 47
4	The Simple Lifestyle Indicator Questionnaire and Its Predictive Validity For Health-Related Quality of Life and Wellbeing.	Jacqueline Fortier See abstract on page 52
5	Advance Life Support: Resuscitating the Family Medicine Curriculum	John Campbell See abstract on page 40
6	The Incidence of Drug-Induced Diabetes in Patients Taking Anti-Hypertensive and Lipid-Lowering Medications: An Overview of Systematic Reviews	Erin Davis See abstract on page 51
7	The Burden of Osteoarthritis: Use of Hospital Services and Prevalence of Comorbidity Among OA Inpatients in Newfoundland and Labrador	Jennifer Woodrow See abstract on page 50
8	Predictors of Early Insulin Use in Patients with Type 2 Diabetes: A Cross-Sectional Study	Waseem Abu-Ashour See abstract on page 48
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# Abstracts

## Oral Presentations

### **A Case Study Examining the Impact of Community Music Therapy in Increasing Participant Well-Being**

C. Jane Gosine, Deborah Hawksley, Susan LeMessurier Quinn

**Context:** For individuals marginalized for physical, social, emotional, or psychological reasons, music can offer a unique means of self-expression and the opportunity to develop a sense of belonging, community and mutual respect and to form meaningful relationships in ways that might otherwise be impossible. It can also enable physical movement through the synchronization of sound and gesture. Music therapy has the potential to lead to an increase in the general health of individuals participating in it. **Objective:** Our research project is based on the premise that music is a human right that should be equally accessible to all individuals. It examines the importance of building a sense of community and wellbeing through musicking within both a music therapy setting and in collaboration with local musicians from the wider community, where the benefits can be mutual. **Design:** The research is based on a two-year case study undertaken at Easter Seals Newfoundland and Labrador with two accredited music therapists. Our research findings are based on a mixture of methodological tools, but primarily qualitative description and grounded theory. Data was collected through observations during the weekly music therapy sessions that were videoed then transcribed, as well as workshops given by community musicians, as well as through questionnaires and follow-up interviews. Data was analyzed and compared with existing literature related to our study. **Participants:** Our participants, drawn from a music therapy group, were aged between 16 and 23 at the beginning of the study, both verbal and non-verbal, primarily with a diagnosis of cerebral palsy. For the second part of the study, our participants also included local musicians chosen because their musical interests matched the musical preferences of our Easter Seals participants. **Intervention/Instrument:** n/a **Outcome measures:** n/a **Results:** Through weekly music therapy sessions, individuals increased their social and communication skills, and demonstrated more self-confidence, leadership and independence through musical creativity. Both Easter Seals and community musicians benefitted mutually from musicking together. **Conclusion:** Collaborations between individuals with disabilities and community musicians help lead to greater inclusion and awareness. It is hoped that further research in this area can lead to more programming that can promote better health for participants.

### **A Comparison of Newfoundlanders Lipid Profiles with the Rest of Canada: Findings From Canadian Primary Care Sentinel Surveillance Network Data**

Erfan Aref-Eshghi, Marshall Godwin, Pauline Duke, Tyler Williamson, Masoud Mahdavian, Shabnam Asghari

**Context:** The highest rate of cardiovascular disease in Canada is well documented in Newfoundland and Labrador (NL). A higher prevalence of dyslipidemia or abnormal serum lipid levels in NL could be a contributing factor to this phenomenon. **Objective:** To describe and compare the lipid profile of the NL population with the rest of Canada (ROC). **Design:** A cross-sectional design was used for this study. **Participants:** Adults aged 20 years and older who visited family physicians across Canada from January 1, 2010 to December 31, 2012 were included in the study. Pregnant women were excluded. **Intervention/Instrument:** The Canadian Primary Care Sentinel Surveillance Network (CPCSSN) database was used to obtain data on lipid profiles of patients. Dyslipidemia was determined using Canadian guidelines for the diagnosis and treatment of dyslipidemia. **Outcome measures:** Independent vari-

ables including place of residence, age, sex, BMI, medication history, and comorbidities were also included in the analysis. Univariate and multivariate analyses were used to compare the lipid profile and dyslipidemia between NL and the rest of Canada (ROC). Results: 128,825 individuals (NL: 7,772 & ROC: 121,053) with mean age of 59 years were included in the study. Mean levels of Total Cholesterol (4.96 vs. 4.93,  $P=0.03$ ), LDL (3.00 vs. 2.90 mmol/L,  $P<0.0001$ ), Triglyceride (1.47 vs. 1.41 mmol/L,  $P<0.0001$ ), and Ratio (4.06 vs. 3.76 mmol/L,  $P<0.0001$ ) were significantly higher in NL; whereas, HDL levels (1.29 vs. 1.39 mmol/L,  $P<0.0001$ ) was lower. Prevalence of dyslipidemia of LDL (29.90% vs. 25.80%,  $p<0.0001$ ), HDL (38.50% vs. 27.90%,  $p<0.0001$ ), Triglyceride (29.08% vs. 26.02%,  $p<0.0001$ ), and Ratio (19.99% vs. 14.20%,  $p<0.0001$ ) were significantly higher in NL, while the prevalence of Total Cholesterol dyslipidemia between NL and the ROC did not differ significantly (40.66 vs. 39.80,  $p=0.132$ ). The results remained significant after adjustment for age, sex, BMI, place of residence, medication use, smoking, comorbidities, and other lipid components. Conclusion: Our study demonstrates that the NL population has a significantly higher prevalence of dyslipidemia compared to the rest of Canada. This may be related to both specific cultural and genetic features of the NL population.

### **A GP For Me Program in British Columbia**

Brenda Hefford

Context: Research shows that a strong primary care system, centered on continuous doctor-patient relationships, leads to the best health outcomes for patients. The number of patients without a family physician in British Columbia is uncertain, varying between studies and communities. The Canadian Community Health Survey (2009-2010) estimated that 13.8% of British Columbians (approximately 615,000) do not have a regular medical doctor and that 3.96% of British Columbians (approximately 176,000) are looking for a regular family physician. Objective: A GP for Me is a joint initiative of the Government of BC and the Doctors of BC (formerly known as the British Columbia Medical Association) through the General Practice Services Committee (GPSC) with the goals being to: confirm and strengthen the GP-patient continuous relationship, including better support for the needs of vulnerable patients; enable patients who want a family doctor to find one; and increase the capacity of the primary health care system. Target audience: This program is meant to address the needs of patients who have not been able to have access to a longitudinal relationship to a family doctor. Description: Over the past five years, The General Practice Services Committee has supported the development of Divisions of Family Practice in BC. Now five years since their inception, there are 33 divisions encompassing small rural to large urban communities. The “attachment initiative” was initially launched in three of these divisions in 2010. Based on the prototyping work from these communities, the provincial launch of the A GP for Me initiative was announced in 2013. Strategies include providing supports at both the practice and community levels: At the physician practice level new patient attachment incentives have been introduced that are intended to increase the efficiency of individual practices and further develop their capacity to take on patients who do not have access to primary care. At the community level funding is available to Divisions of Family Practice to: evaluate the number of people looking for a family doctor in their community, the needs of the local family physicians, and the strengths and gaps in local primary care resources. As a result of this assessment, to: develop and implement a community plan (working with their local health authority and other partners) for improving local primary care service delivery capacity, including a mechanism for finding doctors for patients who are looking for one. Provincially, strategies are being developed to clearly communicate to patients and the public the benefits of a strong relationship with a GP. Evaluation: An overarching provincial framework for evaluation is being developed, and local communities are also evaluating their outcomes. Conclusion: Currently, almost all of the Divisions of Family Practice in BC are at various stages of assessment and planning, or implementation of their local strategies to address the goals of A GP for Me. An update and illustrative examples of progress to date will be presented.

## **A Proof of Concept Study Utilizing Electronic Medical Record (EMR) Data: The Relationship of Obesity with Chronic Illness and Health Care Utilization**

John Knight, Jennifer Phillips, Jeff Dowden, Madonna Roche, Kayla Collins

**Context:** Obesity rates in Newfoundland and Labrador (NL) are among the highest in Canada. Despite this, there has been little research into the impact of obesity on the provincial health care system. **Objective:** The current study aimed to examine the relationship of body mass index (BMI) with chronic illness and health care utilization. **Design:** As part of an EMR pilot project we constructed a cross-sectional study by linking EMR data from NL family physician practices within the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) to four years of hospital abstracts and physician claims. **Participants:** The study sample included 2965 adult patients with calculated BMI. **Intervention/Instrument:** Calculated BMI values were obtained from EMR data. Patients were categorized as normal weight (18.5 kg/m<sup>2</sup>- 24.9 kg/m<sup>2</sup>), overweight (25.0 kg/m<sup>2</sup>- 29.9 kg/m<sup>2</sup>) or obese (>30.0 kg/m<sup>2</sup>). Median BMI was calculated for patients with multiple BMI values. **Descriptive statistics** were used to examine differences in outcomes across BMI categories and multi-variate regression analysis was used to examine utility of BMI in predicting outcomes. **Outcome measures:** Data was obtained on the following outcomes: chronic conditions and other serious health conditions, number of family physician encounters, number of specialist and non-medical referrals, number of hospital separations and length of stay. **Results:** After controlling for covariates, obese patients were 3.79 (95% CI 2.91-4.95) times more likely to have diabetes, 6.09 (95% CI 4.09-9.13) times more likely to have hypertension and 2.29 (95% CI 1.57-3.34) times more likely to have osteoarthritis compared to normal weight patients. In addition, obese patients had an increased number of family physician encounters (Rate Ratio (RR) 1.15 95% CI 1.13-1.18), total referrals (RR 1.35 95% CI 1.21-1.49) and non-medical referrals (RR 2.22 95% CI 1.26-3.92). There was no association of obesity with hospitalization or length of stay. **Conclusion:** This study found an association of obesity with chronic illness and increased family physician utilization and demonstrated the utility of EMR data for research when linked to health administrative data. Further study is needed in larger populations and to address potential confounding factors that could not be accounted for in the present analysis.

## **Changes in Registration Process to Improve Outcomes For Patients Presenting with Acute Myocardial Infarction (AMI)**

Nadine Roberts

**Context:** As part of a Safer Health Care Now initiative, an interdisciplinary AMI team was formed at Green Bay Health Centre with a goal to improve the delivery of care to patients that present with symptoms suspicious for AMI. **Objective:** Patients presenting with symptoms of acute myocardial infarction receive timely and appropriate medical interventions to ensure the best possible outcome. **Target audience:** Physicians, Nurse Practitioners, Nurses, Paramedics, License Practical Nurses, Primary Health Care Leadership teams, Health Information and Registration Clerks, and any other health professionals **Description:** By using a model for improvement based on the principles of Plan, Do, Study, Act (PDSA) the AMI Team reviewed the current process for recognition and treatment of patients presenting with AMI symptoms. Issues were identified that caused delays in timely treatment of AMI patients and a test of change was implemented. Early recognition and interventions for patients with AMI was facilitated through a change in the registration process. **Evaluation:** The AMI Team developed an ongoing evaluation process to continuously improve early recognition and treatment for patients with AMI. The evaluation includes feedback from patients and staff in addition to regular chart audits and reviews **Conclusion:** As a result of the AMI initiative, we developed a streamlined approach to patient registration that lead to earlier recognition of patient's chief complaints, including AMI. Ultimately, this allowed for timely and appropriate medical care with the best possible patient outcomes.

## **Delivery By Family Doctors Versus Specialist Obstetricians: A Population-Based Retrospective Cohort Study of Canadian Births**

Kris Aubrey-Bassler, Richard Cullen, Alvin Simms, Joan Crane

**Context:** Research suggests that family physicians deliver high quality obstetrical care with outcomes similar to obstetricians. However, women at high risk of adverse obstetrical outcome are usually managed by specialist obstetricians, which may bias these analyses even after adjustment for known confounders. **Objective:** To compare traditional multivariate analysis with alternative analytical approaches designed to minimize bias in order to estimate the effect of delivery by family physicians vs. obstetricians. **Design:** Population-based retrospective cohort study of Canadian obstetrical deliveries between April 1, 2006 and March 31, 2009. Mothers' postal codes were assigned to the catchment area of a hospital if a plurality of the patients from that postal code were admitted to that hospital for their acute care hospitalizations. Hospital catchments were divided into quintiles of percentage of deliveries by family physicians among women living in those catchments (not necessarily delivering at that hospital). Dividing deliveries by home hospital rather than delivery hospital minimized bias associated with the selective referral of high risk women from the home hospital to higher level care. Standard multivariate logistic regression was conducted followed by the same analysis with additional variables for quintile of deliveries by family physician. Both models were adjusted for clustering at hospitals and for 78 ecological, hospital, physician, maternal and infant factors. **Participants:** Linked maternal and infant records for deliveries performed by FPs (n=216,208) and obstetricians (n=584,160). **Intervention/Instrument:** Obstetrical delivery by an FP. Data were extracted from the Discharge Abstracts Database held by the Canadian Institute for Health Information. **Outcome measures:** Perinatal mortality (n=5972). **Results:** In traditional multivariate analysis, the odds of perinatal mortality in neonates delivered by an FP were lower by 24% (odds ratio 0.76, 95% confidence interval (CI) 0.59-0.97). The mean percentage of deliveries by family physicians ranged from 4.0 to 67% across quintiles. After inclusion of these terms in the regression analysis, the odds of perinatal mortality across quintiles respectively were 0.99 (95% CI 0.84-1.18), 0.82 (0.66-1.01), 0.90 (0.71-1.14) and 0.90 (0.71-1.12), relative to the lowest quintile. **Conclusion:** Perinatal mortality does not vary across hospital catchment areas with different percentages of deliveries by family physicians.

## **Developing a Psychotherapy Training Program for Psychiatry Residents at Memorial University**

Grigore Radu, Gregory Harris, PhD, Faculty of Education, Weldon Bonnell, MD, MSc, Faculty of Medicine and Gerona McGrath, MBA, MEd, Faculty of Medicine

**Context:** The Royal College of Physicians and Surgeons of Canada recently made changes to the specialty training requirements in psychiatry and requested significantly increased competencies in several psychotherapies. Under the new training requirements and objectives, psychiatry residents were expected to achieve varying degrees of competence in several psychotherapies including supportive therapy, crisis intervention, cognitive behavioral therapy, long term and brief psychodynamic psychotherapy, family therapy, group therapy, interpersonal psychotherapy, dialectical behavior therapy, motivational interviewing, mindfulness and relaxation training. **Objective:** This presentation will be a case study of the innovative strategies, new frameworks, challenges, opportunities and current outcomes resulting from developing and implementing a new interprofessional psychotherapy training at Memorial University in keeping with the newly set requirements. The design and development of the new training program was conceptualized by the coordinator of psychotherapy training program in consultation with academic and clinical experts from the Faculties of Education, Science and Medicine and implemented with support from senior level faculty and administrators from the Faculty of Medicine at Memorial. **Target audience:** This presentation will target professionals working in various clinical and academic roles across the spectrum of primary mental health healthcare including psychiatrists, family physicians, educators, administrators, psychologists and social workers. **Description:** The new

psychotherapy education model was designed to provide a gradual, interprofessional, integrated and developmentally appropriate transformational experience in psychotherapy over four years of training. An introduction to psychotherapy course including didactics in motivational interviewing, mindfulness and relaxation training was scheduled during the first year. Training in cognitive behavioral therapy, interpersonal therapy and group therapy was integrated with clinical training in inpatient and outpatient psychiatry throughout the second year of training while didactic and skill training in supportive therapy and crisis intervention was developed and implemented during the second and third year so that psychiatric trainees start applying the newly acquired knowledge and skills in their clinical work. Fourth year residents participated in a newly developed ten month intensive supervision course in long term psychodynamic psychotherapy. An online psychotherapy resources program was made available to all residents and provided exposure to dialectical behavior therapy. The fifth and final year of training was reserved for elective training in psychotherapy. Evaluation: The Medical Education and Scholarship Centre at Memorial University is involved in ongoing program evaluation to assess the degree to which the new training requirements are met. Conclusion: It was possible to develop a high quality, sustainable, mostly internally sourced interprofessional psychotherapy training program that covers a significantly increased number of different competencies in various psychotherapies which meets the new requirements of the Royal College of Physicians of Canada.

### **Development of a Primary Care Obstetrics Teaching Program at a Tertiary Care Centre: Challenges and Opportunities**

Norah Duggan, Susan Avery, BSc, MD, CCFP; Robert Miller, MD, CCFP; Amanda Pendergast, BSc, MD, CCFP, FCFP; Russell Dawe, BSc, Mdiv, MD, CCFP

Context: For many years, Residents in the Family Medicine Residency program at Memorial University have completed their OB/Gyn block of training in rural teaching sites in Newfoundland and Labrador, New Brunswick and Iqaluit. With the program's expansion, development of a longitudinal curriculum and decrease in rural birth rates, it is both timely and necessary to develop an urban practice model for providing and teaching intrapartum care. Objective: To develop a sustainable model of practice and teaching primary obstetrical care. Target audience: Family physicians, midwives, all obstetrical care providers. Description: The Family Medicine Obstetrics group provides family-centred prenatal, intrapartum and postpartum/newborn care. There are multiple points of entry for the patient and their family into the care group. Patients are cared for by their own family doctor or by one of the group physicians until 36 weeks gestation. They then attend a weekly shared prenatal clinic, where they have the opportunity to meet all of the physicians in the group and discuss their care plan in the context of their own health, needs and values. The physicians in the group share call and care for the mother and baby through labour, delivery and postpartum up to six weeks of age, depending on preference of the parents. Residents are currently incorporated into the group by seeing prenatal patients in their "home" clinic, attending the group prenatal clinic when on the call schedule and providing supported labour, delivery and postpartum care under the supervision of the attending family doctor. Long term measures will include development of a multidisciplinary care team, including midwives and nurses and ability to provide multilevel (undergraduate and postgraduate) and multidisciplinary (family medicine, OB, pediatrics, nursing, RM, etc.) teaching in a patient-centred model of care. Evaluation: Success will be measured in terms of patient outcomes and satisfaction, resident outcomes and increased involvement of community family doctors in intrapartum care. Conclusion: Currently this program is in its infancy, with three years of experience. Despite many challenges, this team based approach shows much promise for training residents in a longitudinal curriculum in patient-centred obstetrical care.



## Differences in Health and Lifestyle Behaviors Between Males and Females Aging with Multiple Sclerosis

Michelle Ploughman, Chelsea Harris

**Context:** Health behaviors influence disease progression and are related to adverse outcomes in multiple sclerosis (MS). Since MS affects women more than men (3:1), men are often underrepresented in MS research. The gender-related differences in health behaviors and potential impacts on MS are not known. **Objective:** The aim of this study was to identify health and lifestyle differences between males and females diagnosed with MS, and to determine if these factors impacted aging with the disease. **Design:** : Data was collected from a national survey; the “Canadian Survey of Health, Lifestyle and Aging with MS”. **Participants:** Participants were included in the study if they were 55 years of age or older and had MS symptoms for 20 years or more. Ethical approval was obtained in 11 Provinces/Territories across Canada. Those who provided consent and met the inclusion criteria were mailed a questionnaire. **Intervention/Instrument:** The survey consisted of previously validated instruments (Multiple Sclerosis Impact Scale (MSIS), Barthel Index, Frenchay Activities Index (FAI) Simple Lifestyle Indicator Questionnaire, the Hospital Anxiety Depression Scale (HADS), Resilience Scale, the Personal Resource Questionnaire) designed to measure specific domains such as health-related quality of life, mental and cognitive health, functional ability, and lifestyle. **Outcome measures:** Survey respondents were separated by gender to analyze differences in health and lifestyle variables. **Results:** : Of the 743 respondents, 166 were males and 577 were females. There were no significant differences in any of the demographic characteristics chosen for this population sample based on gender ( $p > 0.05$ ). Females had higher scores of anxiety than males; whereas, males had higher scores of depression. When health and lifestyle behaviors were assessed using Simple Lifestyle Indicator Questionnaire, females scored significantly higher than males indicating that they have healthier lifestyle behaviours. Females had healthier diet behaviors; however, they were more likely to engage in smoking behaviors compared to men. Men had significantly higher alcohol consumption than women. Data analysis is ongoing. **Conclusion:** Gender differences in health and lifestyle behaviours exist in this sample. Women have healthier lifestyles overall. The relationship between lifestyle behaviors and disability, participation and quality of life will be discussed.

## Embodying a New Meaning of Being at-Risk For Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC): the Newfoundland Story

April Manuel

**Context:** Context Researchers have started to look at how the availability of predictive genetic testing shapes the lived experiences of individuals living in families’ at-risk as well as subsequent health care decisions. Little attention has been paid to how the embodiment of risk is (re) shaped in light of emerging genetic technologies and how these at-risk individuals start to adjust to and cope with their genetic test results. Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) is a fatal genetic heart condition prevalent in Newfoundland and Labrador which has a definitive predictive genetic since 2007. **Objective:** To examine the experiences of individuals living in a family at risk for ARVC as they move through the genetic testing process at different historical periods of gene discovery. **Design:** A grounded theory approach was used to guide the individual (n=9) and the three focus group interviews (n= 4; n=12; n=5). **Participants:** The sample included 29 participants. There were 15 ARVC positive individuals and five ARVC negative individuals. One participant was waiting genetic testing. The remaining eight participants were spouses of ARVC-positive individuals. **Intervention/Instrument:** NVivo software was used to for data management. **Outcome measures:** Data analysis methods employed were the constant comparative method, coding, theoretical memoing, and diagramming (Glaser, 1978) **Results:** The three categories, (1) adjusting to living with or without a genetic condition,(2) recognizing the reality of living in a family at risk for ARVC, and (3) looking to-

wards the future, describe the variations in participants' experiences as they embody and cope with a new meaning of being at-risk. Factors that influence participants' experiences were physical signs of ARVC, support networks, self management strategies, treatment options, knowledge of ARVC, resources, quality of life, and imposed restrictions. Conclusion: The process of embodiment of risk unfolded as participants juxtaposed existing scientific knowledge against their experiential knowledge. The concept of risk is saliently embedded within participants' lives and is contextual in nature. In order to help individuals living in a family at-risk for ARVC cope, health care providers need to assess for the specific factors that influence risk perception and provide resources reflective of these needs.

### **Food and Fun Camp: Evaluating the Impact**

Jill Wheaton, Vanessa Young

**Context:** The Food and Fun Camp program, a hands-on health promotion approach to teaching children cooking skills, has been operating in central Newfoundland since 1999, however had never been formally evaluated. **Objective:** To identify strengths and weaknesses of this program for more effective implementation, and to measure gains in knowledge and behavior change in the children and families who participated during the summer of 2013. **Design:** Data was gathered through pre- and post-tests as well as written surveys at the end of the 5-day camps. 3-month follow-up telephone surveys were administered to parents. **Participants:** Feedback was gathered from children attendees (n=74), their parents (n=35), camp leaders responsible for day-to-day running of camps (n=13), community development nurses who facilitate establishment of camps (n=10), and community partners who donate time, space, or other resources (n=10). **Intervention/Instrument:** Survey results were analyzed using FluidSurveys, an online survey software program. **Outcome measures:** Number of communities participating, gender of children participating, satisfaction of participants and parents, gain in knowledge of participants, change in behavior of participants and parents/family, barriers for implementation, and suggestions for improvement. **Results:** In 2013, camps were offered in 17 communities within the central Newfoundland region (12 represented in survey results). 70% of participants were female. 98% of children who attended said they enjoyed camp. Gains in participant knowledge of food safety and meal preparation were demonstrated. 3 months later, 80% of parents reported improvements in their child's food preparation abilities since attending camp, 74% reported improvements in safe food handling skills, and 48% noticed their child choosing healthier food and beverages. Over half (57%) of parents said their child was more likely to try new food. 46% of parents reported making changes in their own lifestyle as a result of their child attending camp. The main barrier for implementation was securing paid summer student positions. Strengths and weaknesses of the camp were identified; constructive suggestions for improvement were voiced. **Conclusion:** The Food and Fun Camp program is a successful program worthwhile of continued investment and expansion. The food literacy skills learned within the camp are transferable to the home setting.

### **From Evidence to Actionable Clinical Practice Guidelines: Translation and Implementation of the BETTER 2 Program**

Carolina Aguilar, Donna Manca, Eva Grunfeld, Kris Aubrey-Bassler, Kami Kandola, Denise Campbell-Scherer, Vee Faria, Ginetta Salvalaggio, June C. Carroll, Christina Korownyk, Christopher Meaney and Nicolette Sopcak

**Context:** The Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Family Practice (BETTER) trial was a randomized controlled trial conducted in eight primary care practices in Alberta and Ontario that demonstrated the effectiveness of an evidence-based shared decision making approach to chronic disease prevention and screening (CDPS). The BETTER approach, which leverages existing practice resources and creates a new, skilled, role of "Prevention Practitioner" (PP), was effective in increasing primary prevention maneuvers and screening of cancer (breast, colorectal, cervical), diabetes and cardiovascular disease and associated lifestyle factors.

Building on these results, the BETTER 2 Program aims to transform practice through the adaptation of this patient-level approach that targets at-risk populations in participating urban, rural and remote communities across Canada. Objective: To improve CDPS in primary care for cardiovascular disease, diabetes, cancer and associated lifestyle factors. The desired long-term goals are improved clinical outcomes, reduction in the burden of chronic disease and improved sustainability of the health care system through improved CDPS in primary care. Target audience: Patients aged 40-65. The BETTER 2 program brings together primary care providers, policy/decision makers and researchers to work towards improving CDPS in primary care. Description: The clinical working group conducted a review of the literature to synthesize and create novel, integrated evidence algorithms and tool kits that facilitate decision-making between providers across the target diseases and lifestyle factors of the BETTER 2 Program. These resources are nuanced, based on individual patient risk, values and preferences. Using the updated BETTER 2 toolkit, the PPs determine which CDPS maneuvers patients are eligible to receive and through shared decision-making and motivational interviewing develop individualized “Prevention Prescriptions” with patients. Evaluation: Informed by the RE-AIM framework, the program will undergo a rigorous evaluation using qualitative and quantitative methods. Descriptive assessments and evaluations of effectiveness, including a composite measure of CDPS effectiveness using a summary quality index (SQUID), will be undertaken. Conclusion: A new strategy is needed for CDPS within primary care as patients often have complex care needs. The BETTER program provides the framework and tools that can help primary care providers approach and improve CDPS in their practices.

### **Improving Self-Management Support Within Diabetes Teams**

Darla King

Context: Self-Management is recognized as one of the most powerful resources in health care. It is fundamental to assisting people to better manage their health, and live fuller healthier lives. Yet it is one of the least used approaches to chronic disease management. Implementing self-management requires a shift in culture and how professionals see their roles. Professionals need to become more comfortable moving away from the role of expert and become more collaborative partners with clients. Objective: The purpose of this project was to support diabetes teams within the Western Region with successful integration of a self management approach. Target audience: This presentation will be useful for front-line service providers as well as administrators and policy-makers who are interested in quality improvements in chronic disease care. Description: Western Health used a standardized tool, the Primary Care Resources and Supports for Self-Management(PCRS), to evaluate diabetes teams’ baseline performance related to self-management support. Using results from the evaluation, three priority areas for improvement were identified. These areas included emotional health, patient input, and staff training/development. Teams were engaged in development and implementation of specific actions to support improvements in these areas. Evaluation: Several evaluation strategies were completed to measure change. This included a client survey using the Patient Assessment of Chronic Illness Care (PACIC), a self-management support training evaluation and a chart audit. Teams also completed a re-test with the PCRS tool to evaluate the overall success with implementation of self-management support. Conclusion: Positive results have been achieved on a client, team and organizational level. Organizational policies and procedures that are supportive of the self-management approach have been successfully implemented. Staff development surveys indicate that teams are becoming more confident and knowledgeable about the approach. Over 90% of clients surveyed agreed that providers were knowledgeable and skilled, that treatments were helpful in managing their diabetes and that they had an overall positive experience with our services. Results suggest that Western Health has successfully laid a good foundation for self-management support within local diabetes teams.

### **Incorporating Health Equity Within the Health Agenda in NL**

Martha Traverso-Yepe, Willian Bavington, Catherine Donovan, Shree Mulay, Rebecca Schiff, Lynn Vivian Book, Ann Ryan, Kelly Hunter

**Context:** Although it is well-known that the social and economic environment accounts for as high as 50% of population health outcomes (Kirby Report, 2002), the continuing trend has been to address the immediate lifestyle choices and not the complex socio-economic factors influencing those choices. **Objective:** The aim of the study was to investigate existing challenges, strengths, and best practices to incorporate the social and economic aspects of health into public health actions and identify barriers and facilitators in working towards health equity. **Design:** Qualitative design and in-depth interviews with professional service providers interested in the health equity agenda in the province. **Participants:** Aware of the relevance of working within a multi-sectorial approach, we have consulted with 35 professionals distributed in a representative sample of health professionals, front line public health workers, allied health professionals, mental health professionals, social workers, educators, community services workers, and government services workers. **Intervention/Instrument:** Although the World Health Organization (WHO) Commission on Social Determinants of Health Report (2008) clearly emphasized that health inequalities are caused by socio-economic and political features in society and consequently must be only tackled by a “health-in-all-policies-approach”, the health equity agenda is not part of everyday practices yet. **Outcome measures:** Through the research process we expect to engage those professionals interested in the health equity agenda in the province to come forward with suggestions and insights to generate a knowledge mobilization dynamic in the province. **Results:** Ongoing research analysis shows that all participants acknowledged how low-income related issues are all intertwined and negatively affect people’s health in NL, providing specific examples from their fields. Our emphasis for this presentation will be on the growing disparities most participants have identified as a consequence of the recent economic boom in the province. Participants emphasized that the economic boom has brought not only specific problems related to new found wealth, but also asserted about how specific issues related to the socio-economic environment are worsening health and well-being of the traditionally more challenged sectors of the population, including rural communities, people living on fixed low-incomes, and people with addictions and other mental health issues. While many participants highlighted the leading role that the Provincial Poverty Reduction Strategy had even at the Federal level a few years ago, they felt that this initiative is not as active as it used to be. **Conclusion:** While most of the participants are engaged in committed and innovative actions to address health equity within their practices and shared their knowledge and insights with the research team, there was also strong emphasis about the need to raise more awareness, making these issues more visible among professionals, general public, and policy makers.

### **Incretin-Based Medications for Type 2 Diabetes: An Overview of Systematic Reviews**

John-Michael Gamble, Amy Conway, Kristina Myers, Meghan Agnew, Kelly Hatch, Megan Snow, Erin Davis

**Context:** Despite a paucity of evidence on the long-term clinical outcomes for incretin-based diabetes medications, there is an overwhelming volume of published knowledge synthesis literature, particularly systematic reviews. **Objective:** To summarize evidence from and assess the quality of published systematic reviews that evaluate the safety and effectiveness of incretin-based medications used in the treatment of type 2 diabetes. **Design:** An overview of systematic reviews. Using a comprehensive search strategy consisting of bibliographic databases and other sources, we identified systematic reviews of randomized controlled trials or observational studies published in any language that evaluated the safety and/or effectiveness of glucagon-like peptide-1 (GLP-1) receptor agonists and/or dipeptidyl peptidase-4 (DPP-4) inhibitors. The methodological quality of included systematic reviews was independently assessed by two reviewers using the AMSTAR checklist. The protocol for this overview is registered with PROSPERO

(2013:CRD42013005149). Participants: N/A Intervention/Instrument: N/A Outcome measures: The primary outcomes were pooled estimates (weighted mean difference or relative treatment measure [OR, RR, or HR]) for glycemic control, macrovascular and microvascular complications, and hypoglycemic events. Secondary outcomes included all-cause mortality, quality of life, weight change, hypersensitivity reactions, cancer, pancreatitis, infections, blood pressure control, and lipid control. Results: We identified 467 unique citations of which 84 systematic reviews met our inclusion criteria. There were 51 and 64 reviews that evaluated one or more GLP-1 receptor agonists (exenatide [n=47], liraglutide [n=40], lixisenatide [n=4]) and/or one or more DPP-4 inhibitors (alogliptin [n=57], linagliptin [n=33], saxagliptin [n=42], sitagliptin [n=22], vildagliptin [n=25]) respectively. The median (IQR) AMSTAR score was 6(3) out of a possible 11 for reviews that conducted a meta-analysis (n=66 [79%]) and 1 (1) for non-quantitative reviews (n=18 [21%]). Among the 66 quantitative systematic reviews, there were a total of 718 pooled estimates of treatment effect reported for our primary outcomes: glycemic control (n=477), macrovascular complications (n=83), hypoglycemia (n=158), and microvascular complications (n=0). There were 1012 reported pooled estimates for secondary outcomes. Conclusion: Clinicians and policy makers using the results of systematic reviews to inform decision-making around the care of patients or health care policies for incretin-based medications should consider the variability in quality of reviews.

### **Integrating Chiropractic Services in a Primary Care Setting For Marginalized Populations**

Darrell Wade, Major Hedley Bungay

**Context:** The diagnosis and management of Musculoskeletal (MSK) disorders continues to present significant challenges to society particularly with respect to socioeconomically challenged populations. In light of this the Newfoundland and Labrador Chiropractic Association in partnership with The Salvation Army New Hope Community Centre (NHCC) introduced an integrative solution that addresses this need for enhanced MSK care in a primary care setting particularly for marginalized populations in the downtown core of St. John's, NL. **Objective:** The objective of the program is two-fold; To improve function and decrease pain and disability in marginalized populations by providing the services of a chiropractor in a team based model to the clients of the NHCC for two half days per week; To demonstrate the ability of decision makers to integrate innovative models of care within primary care settings through an exploration of non-traditional models of primary care. **Target audience:** This program will be of particular interest to Health Care Decision Makers, Primary Health Care Practitioners, and Not for Profit Organizations with a focus on the health and well-being of marginalized populations. **Description:** On June 4, 2014, the NHCC began providing its clients with access to the services of a chiropractor for two half days per week. These services are provided without cost to the clients thereby removing previous barriers to access. While it is hypothesized that having access to these services may provide significant health benefits in the area of musculoskeletal diseases and conditions, outcome measures will be implemented in order to assess the validity of this hypothesis. This program is designed in an integrative manner in order to maintain continuity of care with existing primary care providers. **Evaluation:** Patient based questionnaires and pain scale ratings at intake and pre-determined intervals. **Conclusion:** Innovative models of integrating non-traditional health care providers into primary care settings may offer significant benefit to patient outcomes particularly in those populations who traditionally lack access due to financial or other socioeconomic barriers. In order to achieve true innovation however it is essential that the objective of program implementation always remains client-centred.

## **Many Voices One Community Investigating the Perceptions of Youth Mental Health and Substance Use in a Small Urban Community**

Lisa Bishop, Dr. Stephen Darcy

**Context:** In a small urban community in Newfoundland, health professionals from the local health centre and residents from the community expressed concerns over the apparent prevalence of mental health and addictions (MH&A) issues amongst the youth & young adults. Using a Community-Based Participatory Research approach, the clinicians partnered with the local community board to further investigate the perceptions of MH&A-related issues in the community to gain a clearer picture of the community's situation. **Objective:** (i.) To determine how the community views the relationship between mental health and substance abuse in young adults (ii.) To determine the perceived effectiveness of currently available MH&A services (iii.) To identify any barriers for the prevention, detection, and treatment of MH&A problems among the community's youth (iv.) To identify strategies to help meet the MH&A needs of the community's youth. **Design:** A qualitative study was conducted using focus groups and interviews. Interviews were conducted with 1 or 2 participants, while focus groups were conducted with 3 to 8 participants. Sessions were guided by a facilitator, and a note-taker was present. Sessions were recorded and subsequently transcribed for further analysis. **Participants:** Participants were either community residents and/or professionals working in the community. Participants were recruited via advertisements or word of mouth. Twenty-three people participated in total, with 3 focus groups and 2 individual interviews. **Intervention/Instrument:** Questions that covered the aforementioned objectives were formulated by the research team and community board, and integrated into the discussion by the facilitator. **Outcome measures:** Three team members individually thematically analyzed the transcripts to identify prevalent themes and ideas that emerged from the sessions. They then compared and discussed results, deciding upon common findings. **Results:** Four main themes were identified: (i.) strengths and challenges within the community (ii.) normalization of substance use (iii.) a lack of accessible MH&A services (iv.) the need for youth substance use prevention. **Conclusion:** It was clear that the community has many positive characteristics, but MH&A issues are present within the community. The information gathered from this research will help design a community intervention to address youth MH&A problems. The program/services will encompass prevention, detection and management.

## **Networking and Systemic Responses to Deal with Children's Adverse Experiences**

Martha Traverso-Yeppez, David Allison, Brenda LeFrançois, Sandra Luscombe, Leslie Rourke, Kelly Hunter

**Context:** Early experiences define the quality and trends of a child's cognitive and socio-emotional development throughout the lifespan. The psychosocial link between early experiences in life and physical and mental health is well known and has been reinforced by recent neuroscience research. **Objective:** The primary aim of the study was to explore strategies and best practices to prevent and/or overcome adverse experiences in early childhood. **Design:** A qualitative research design included extensive document analysis of recent child protection reports and the legislation in place and interviews with key informants connected to child protection policy and intervention. We also conducted in-depth interviews with front line health care workers and social services providers working with children in the Avalon region of NL. **Participants:** A purposeful sample technique allowed the recruitment of 24 participants among front line health professionals (public health nurses, pediatricians, primary health care doctors, mental health and allied health professionals) and social services professionals (social workers, child, youth, and family services, education, daycare). **Intervention/Instrument:** A comprehensive template was designed for the document analysis and a question guideline was developed for the in-depth interview. **Outcome measures:** The ultimate goal is to develop a participatory knowledge-translation dynamic and the necessary collaborations and partnerships to counteract

family and children's adverse experiences. Results: Most participants agreed that the focus these days generally is the child in crisis, as family/parental supports and concerted multi-sectorial actions to prevent children's adverse experiences are insufficient or not always well coordinated. Participants concur about the relevance of the socio-economic environment in which children live, emphasizing the need of timely supports and follow-up. Some of them highlighted the need to consider structural issues affecting these families and their children, sometimes in an intergenerational dynamic, being important to engage and work with the family in respectful, non-judgmental ways and guarantee quality early childcare and education for children to compensate for poor stimulation at home. Conclusion: Research shows how negative social environments and adverse early experiences must be counteracted with multifaceted, systemic responses in the form of services, resources, and timely interventions. Despite time constraints and tendency to work in silos, practically all participants highlighted the relevance of networking and interdisciplinary, team work to appropriately respond to these families and children's needs.

### **NL Obstetrical Unit Compliance with the BFI**

Anne Drover, Yoshani de Silva, Roger Chafe

Context: Newfoundland and Labrador has one of the lowest breastfeeding initiation rates in Canada at 67%. Only 15% of children are exclusively breastfed for a minimum of six months. The Baby Friendly Initiative (BFI) has been shown to increase breastfeeding initiation and duration rates. At present, none of the Obstetrical Units in NL have been granted "Baby-Friendly" designation. Objective: This study set out to determine the adherence of NL institutions with the Ten Steps of the BFI. Design: A cross sectional study was undertaken at two points over the years 2011-2013. Each institution completed a validated survey before and after a standard Health Professional Education intervention. Participants: All ten Obstetrical Facilities in NL participated in the study. The Obstetrical Nurse Manager was asked to complete all documents. Intervention/Instrument: Three data sources were used: 1. The Maternity Practices in Infant Nutrition and Care (mPINC) survey, which is a validated, standardized tool, developed and administered by the Center for Disease Control (CDC) in the U.S. to measure a hospital's compliance with the 10 Steps of the BFI. 2. A facility survey documenting obstetrical services. 3. Breastfeeding rates data from the Provincial Perinatal Program. These documents were completed before and after the completion of "MaD: Making a Difference; Breastfeeding for Health Professionals" Educational Program; an 18 hour course for front line staff. Outcome measures: Changes in adherence to the Ten steps of the BFI were measured through the use of the mPINC survey before and after the educational intervention. Results: Overall, compliance with the Ten Steps of the BFI was inadequate to promote and support breastfeeding. Average scores in all facilities in all 7 sub-scales were approximately 70%. As for changes in scores following the intervention; results were mixed – some scores increased, others decreased or stayed the same. None of the subscales showed clear indication that the MaD course alone helped to improve compliance with Ten Steps of the BFI. Conclusion: NL Obstetrical Units are not reaching the required level of compliance with the BFI in order to improve breastfeeding rates. Health Professional education alone will not improve compliance. A multimodal approach must be undertaken.

### **Patient-Centred Maternity Care with Collaboration Between Primary Care and Consultant Physicians of the Women's Health Network in Central NL**

Steven Parsons, John Campbell, MD, CCFP EM, Gina Higgins, MD, CCFP, Jennifer Mercer, MD, FRCSC

Context: Newfoundland & Labrador has a small, dispersed population. Further, we are experiencing a declining birth rate and minimal net population growth. For the rural population, accessing safe maternity care is becoming increasingly difficult. With fewer centres providing secondary-level maternity care, regional referral sites are positioned to allow for collection of referrals from remote communities and thus concentrate care. By concentrating

care, RHAs are able to resource and sustain laboratory, diagnostic imaging and blood banking services, Pediatric/Obstetric/Anesthesiology specialist physicians and operating theatre access, all on a continuous uninterrupted basis to provide safe maternity care. With declining birth rates, maternity care providers struggle to maintain competence. Objective: We describe a decade of experience in maternity care in Grand Falls-Windsor, NL. During this time we have maintained primary care (GP/FPs) as the most responsible physicians for intra-partum care. We have instituted measures of quality assurance to improve maternal-fetal outcomes, but we also describe how our institution has followed the North American trend of rising Caesarean birth rates. Target audience: We aim to inform patients of Newfoundland and Labrador of the work being done toward safer maternity care. We wish to provide feedback to the Board of Directors and Senior Administration of Central Regional Integrated Health Authority that long term investments in capital equipment and human resources have been strategic and beneficial. Description: We describe our policies of code teams for high risk deliveries, regular case audit and physician led maternal/fetal ultrasound assessment unit and how these have had a positive impact on maternal-fetal outcomes. We discuss our most recent interventions to address rising rate of Caesarean births include renewed support of vaginal birth after C-section, vaginal delivery of term Breech, safe prevention of the primary caesarean and an adopted public education campaign empowering women to become their own advocates. Evaluation: We will revisit our target indicators: rates of still-birth, primary and total caesarean section, vaginal birth after caesarean and term breech vaginal delivery. Conclusion: Our early data suggests an immediate positive response to these measures in terms of patient satisfaction and measured outcomes.

## Referral and Consultation Process Toolbox

Kelly Higdon

Context: A critical element of high quality healthcare is timely access to specialty care. Canada experiences many challenges in this regard, several of which relate to timely exchange of appropriate information. Numerous initiatives led by a variety of health care system stakeholders, each with a goal of addressing these challenges, are underway throughout Canada but knowledge about them is limited. Objective: To help raise awareness about these successful initiatives, the Canadian Medical Association created a Referral and Consultation Process Toolbox ([www.cma.ca/referrals](http://www.cma.ca/referrals)), an online resource that describes these undertakings in a way that allows others to duplicate this success. Target audience: Anyone who is in a position to effect change in the processes undertaken regarding referrals and consultations. Such individuals are typically health care system administrators within Regional Health Authorities, Health Quality Councils or Provincial/Territorial Ministries of Health, although some projects were initiated by physicians (such as the Champlain BASE project) and therefore other physicians could do the same. Description: The Referral and Consultation Process Toolbox is collection of referral process improvement success stories, organized among four “tool categories”: Intraprofessional Communications, Measuring Wait One, Central Intake and Physician Directories. Concise descriptions of the challenges, successes and lessons learned of nearly 30 initiatives can be also found on the main page of the Toolbox via the link, Referral and Consultation Process Improvement Projects. Contact information of those involved in these initiatives is provided should further details be required. The Toolbox is updated regularly as new approaches to improving the referral and consultation process are discovered. Evaluation: A physician survey conducted in fall 2012 (before the Toolbox was fully populated) found that while not many were aware of this resource at that time, of those who did know about it, 76% found the Toolbox useful and 20% were motivated to implement new ways to approach their referral and consultation process. Conclusion: Anecdotal information indicates that the Toolbox is indeed helping spread these successful initiatives to other parts of the country; however, continued effort to promote this resource to the appropriate people is essential. The Toolbox receives an average of 350 visits per month.



## Rural Midwifery in BC: Towards Solving the Maternity Care Gap

Jude Kornelsen

Context: Rural maternity services are under stress across most of the developed world. Canada has been particularly hard hit with closures and downgrading of small community services over the past 15 years. While these closures have frequently been precipitated by difficulties recruiting and retaining rural maternity health care providers, the underlying problems are systemic and relate to governance, training, and lack of support for sustaining services. In spite of the large numbers of service closures, however, some communities have not only maintained but strengthened local services. If approached systematically, we can learn from these successes and 'scale up' rural innovation for application to other communities. Objective: The goals of this presentation are to: provide an overview of evidence related to the safety of, and importance of access to, rural maternity services; consider a method for linking population need to an appropriate level of local maternity services; and examine examples of innovative rural maternity services and consider a mechanism to assess potential for scaling up. Design: Mix methods research; perinatal services BC data analysis; qualitative interviews with key stakeholders. Participants: data analysis; rural parturient women Intervention/Instrument: Maternal-newborn outcomes; research interviewing Outcome measures: Maternal-newborn outcomes by distance-to-services; psycho-social outcomes for women and their families. Results: Outcomes inversely proportionate to distance traveled; significant psycho-social costs to relocation. Conclusion: The need to identify innovation in rural services, measure and scale up.

## Strongest Families: Using the Internet to Deliver Child Mental Health Services

April Schwanz, Patricia Lingley-Pottie

Context: Gaining timely access to pediatric mental health services can be difficult. Although symptoms are identified in early years, many children do not receive or do not complete full evidence-based interventions. Barriers to care can impede access (e.g., limited availability of primary care mental health resources, inconvenience and cost of travel to weekly day-time clinic appointments, stigma), especially for families living in rural areas. Objective: The Strongest Families Institute's innovative distance service delivery system was designed to remove barriers to care. Harnessing the advantages of technology (e.g., smart web-interface, telephone), families receive evidence-based care in the comfort and privacy of their homes at convenient times. Target audience: Primary healthcare practitioners, researchers, policy makers, administrators and other individuals interested in learning about the integration of Strongest Families distance delivery system as a means to alleviate waitlists and provide primary mental health care. Description: Strongest Families intervention programs have been proven in randomized trials and targets pediatric problems such as behavior, anxiety and nocturnal enuresis. Families receive skill-based education through written materials (smart web-site interface or handbooks), skill demonstration videos (via web-streaming or DVD) and weekly telephone coaching. Strongest Families uses a tailored health information system called IRIS (Intelligent Research and Intervention Software) to manage internal staff efficiencies and go deliver care to children and families. This real-time data entry system houses coaching scripts and client-facing curriculum so that up-to-date information is provided in a timely and convenient manner. Care is customized to meet the families' needs and referring sources receive graphically depicted client progress letters throughout the duration of the intervention. Evaluation: Strongest Families consistently measures and reports outcomes to families, referring agents and funders. Attrition rates are less than 10%. Families report high satisfaction, strong effects on pediatric problems (i.e., 85% outcome success rate, strong effects on bullying and victimization issues, increased academic progress) and strong impacts on parental depression scores. Conclusion: Strongest Families is a cost-effective access solution to primary healthcare reform, reaching families when and where they need help.

## Telegerontology Pilot Project App Development and Results with Skype Communication to Caregivers of Patients with Dementia in Rural Newfoundland

Roger Butler, Dr. Gerard Farrell

**Context:** Telegerontology is an approach using video conferencing to connect the interdisciplinary team in a regional specialty centre to people in rural health care facilities or their homes. To our knowledge, the technique has not been evaluated within the Canadian Health Care system. Bendixen et al. (2009) reported that the US Veteran's Administration telerehabilitation program for chronically ill and disabled seniors was safe and effective and resulted in decreases in hospital and nursing home stays. Cognitive assessment using videoconferencing is a valid method to assess dementia (Saligari et al., 2002; Cullum et al., 2006). With urbanization and an aging rural population, Newfoundland & Labrador is a perfect setting to test the effects of telegerontology. We do not know what technology(ies) will suit regions of the province best. We also do not know how the technique will fit into the current health care landscape (e.g. relationships with community health agencies and primary care clinics). The benefits of Telegerontology on health care utilization (emergency room visits, hospital admissions etc) are not known.

**Objective:** The goal of this project is to test Telegerontology; an innovative way to assist people with dementia and their caregivers to stay safe and healthy in their own homes. Using the remotely delivered expertise of the dementia care team (gerontologist, psychiatrist, nurse, occupational therapist, physiotherapist) we intend to enhance the caregiver/patient dyad and thereby improve care 'in place' for people with dementia. Although this is a preliminary project not powered to determine causation, our hypothesis is that telegerontology support in the home for caregivers, physicians and patients will result in less caregiver stress and fewer hospital visits.

**Target audience:** Health professionals, caregivers of patients with dementia and people living at home with dementia

**Description:** This presentation will let the attendee view the apps which we use as well as review what we have learned to date in our Skype follow-up of patients enrolled in our study. This presentation will focus on the computer aspect of the project.

**Evaluation:**

**Primary Outcomes (measured by rater blinded to allocation):**

1. Caregiver stress (Behavior Management Scale at initial, end, 6 and 12 month follow-up)
2. Home safety (weekly caregiver log books of falls, near falls, injuries during 6 month intervention period with recheck at 6 and 12 months)
3. Challenging Behaviours (Cohen-Mansfield at initial, end and at 6 and 12 months)
4. Health care utilization and long term care admission (visits to ER, primary care physician, and hospital admission using linkage to health care utilization data at NLCHI and Eastern Health for 1 year from initial recruitment to 12-month follow-up)

**Secondary Outcomes**

1. Primary care physician satisfaction with care/comfort in managing patient with dementia.
2. Caregiver satisfaction with care
3. Minutes and type of care (weekly log books of doctor, community health visits, ER visits etc. by both caregivers and telegerontology team).
4. Utility of the video home assessment (for telegerontology care group only)\*.
5. Utility and practical application of technology (internet connections, caregiver comfort, image quality etc. for telegerontology group only)

**Conclusion:** As this is research in progress and is a pilot project by design we may be able to highlight trends as well as design issues with app development and implementation in real time which we have learned to date.

## The 6 for 6 Program: A Research Skills Program For Rural and Remote Family Medicine Faculty

Wendy Graham, Cheri Bethune, Patti McCarthy, Shabnam Asghari, Marshall Godwin, Shari Fitzgerald

**Context:** Family medicine faculty report numerous barriers to participating in scholarly research such as lack of time, resources, and skills. In particular, rural/remote faculty identify additional challenges to research engagement, including professional and geographic isolation and reduced access to professional development opportunities.

**Objective:** To establish and evaluate a longitudinal faculty development program that promotes a foundation of scholarly research activity for rural/remote family medicine faculty.

**Design:** Qualitative methods include key informant interviews with medical scholars and faculty development experts, a focus group with Memorial University's

rural/remote faculty, and small-group discussions with program mentors. Quantitative methods include needs assessment surveys completed by family medicine physicians including program participants and program evaluation surveys administered at baseline, pre-post session, and post-program. Participants: Purposeful and snowball sampling methods were used to select 10 nationally recognized medical scholars and academic experts for key informant interviews, 15 community-based preceptors practicing/teaching in rural or remote settings for a focus group, and seven local experts, including researchers, family medicine physicians/faculty, and an education expert, for a panel discussion. Nineteen family medicine physicians informed program development by completing a needs assessment survey and six faculty/staff were recruited to serve as mentors to the final six participants of the program. Intervention/Instrument: NA Outcome measures: Participants' knowledge, skills, attitudes, and behaviours related to scholarly research will be measured post-program and compared to baseline data. Completion of curriculum activities, development of leadership skills, and changes in research connectivity will be tracked and measured to inform research engagement, leadership, and social capital outcome variables. Results: Preliminary analyses demonstrate that rural faculty face barriers to participating in scholarly research, including limited access to academic services and networking opportunities. Key recommendations include implementation of face-to-face and eLearning activities, research mentorship, and support in the establishment of regional research networks. Program evaluation findings are expected to provide evidence of participants' research knowledge and skills, attitudinal and behavioural change, and program impact. Conclusion: This study identified and prioritized skills and services required by rural/remote faculty to engage in research scholarship. Program evaluation findings will be used to inform the design, implementation, and evaluation of future iterations of the program.

### **The Atlantic Mentorship Network - Pain and Addiction**

Peter MacDougall, Bruce Hollett, MD

**Context:** The mission of the Atlantic Mentorship Network-Pain & Addiction (AMN-P&A) is to increase the capacity of healthcare providers to manage pain, addiction and associated chronic illnesses by providing clinical support, access to other providers and evidence-based educational programs. The AMN-P&A is a mentor-mentee group based program funded by the Department of Health and Wellness of Nova Scotia and the Department of Health of Newfoundland. **Objective:** The objective of the AMN-P&A is to increase the capacity for pain and addiction management through a mentor-mentee network. The mentor-network provides educational resources, clinical resources and knowledge translation **Target audience:** The AMN-P&A is an interdisciplinary network. The target audience includes primary care providers involved in the management of chronic pain and related addictions (Nova Scotia and Newfoundland and Labrador) and primary addiction (Nova Scotia). This includes but is not limited to physicians, nurses, nurse practitioners, psychologists, physiotherapists, occupational therapists, social workers and addiction counselors. The difference in membership is reflective of funding for the management of addiction in Nova Scotia. **Description:** The mentorship network is based around small mentor-mentee groups. Approximately 270 members are present in Nova Scotia, Newfoundland and Labrador, Ontario, Alberta, and British Columbia. Ninety-six members are from Newfoundland and Labrador. Mentors are non-expert peer mentors trained in mentorship. Groups provide a support network and clinical resource for members. Groups meet 3 or more times annually to discuss cases or have other educational events. Content is determined by the group needs to maintain responsiveness at a local level. The network also provides an opportunity for members from across Canada to communicate and learn from each other. This is accomplished through a portal shared with the Ontario Medical Mentoring for Addiction and Pain Network (MMAP), Community Mental Health Network (CMHN) and the McGill network as well as AMN-P&A adjunct members from Ontario, Alberta and BC. Monthly online meetings provide another opportunity for nationwide interaction between providers. The AMN-P&A produces direct educational opportunities in the form of an opioid prescribing course and conferences held annually. All educational events are accredited for Continuing

Medical Education credit. The AMN-P&A maintains formal and informal relationships with the MMAP, CMHN and McGill networks. These relationships provide opportunities to share information at a national level. These links include an interprovincial mentorship program, bilateral membership on steering committees, shared portal and a National Mentorship Conference. Evaluation: Individual education events are evaluated for content and presentation. The network requests that members provide evaluations of the network and of the mentors on an annual basis. A needs assessment is currently before research ethics boards at the University of Toronto and Capital District Health Authority. This needs assessment will provide information key to the ongoing improvement of programs. Conclusion: The AMN-P&A provides a unique opportunity for primary care providers of pain and addiction care to improve their capacity for management of these illnesses through clinical support and education both formal and informal. The network is linked to similar networks in Ontario and Quebec and has members in Alberta and British Columbia providing a national perspective.

### **The Impact of Comorbid Conditions Among Older People with Multiple Sclerosis On Disability Health Related Quality of Life and Participation in Life Roles**

Michelle Ploughman, Chelsea Harris

Context: Comorbidity, illness other than the condition of concern, affects nearly 40% of the MS population with cardiovascular comorbidities and anxiety or depression being the most frequent. Research has suggested that having a comorbid condition during the relapsing inflammatory phase of the disease could impact MS progression, leading to greater disability and subsequent decrease in health related quality of life (HRQoL). Cardiovascular comorbidities worsen MS progression. The impact of comorbidity on aging is not known. Objective: We undertook this study to determine the impact of comorbid conditions on disability, HRQoL and participation in life roles. Design: Data was collected from a national survey; the “Canadian Survey of Health, Lifestyle and Aging with MS”. Participants: Participants were Canadians with multiple sclerosis (MS) who were 55 years or older, and had MS for 20 or more years at the time of the study. Participants were recruited between 2011 and 2012 to take part in a national postal survey regarding health, lifestyle and aging with MS. Participants were recruited through MS clinics, MS Society of Canada research portal, local MS Society Chapters, and newspaper ads. Intervention/Instrument: In order to determine the impact, if any, that comorbidities have on this population we extracted data from validated questionnaires used within the mail out survey. Outcome measures: The MS co-morbidity index, developed by Ruth Ann Marrie, was used to determine the type of comorbidities present amongst the sample as well as the year of diagnosis. Comorbid conditions were grouped into categories; cardiovascular, musculoskeletal and mental health. With comorbid conditions as the independent variable, using linear regression, we examined the relationship to (1) the Barthel Index, (2) the Frenchay Activities Index (FAI), (3) Multiple Sclerosis Impact Scale (MSIS), and (4) Quality of Life visual analog scale. Results: Having a comorbid condition had no impact of level of disability measured by the Barthel Index. When divided into types of comorbid conditions, mental and cardiovascular comorbidities did not impact level of disability or participation in life roles. Musculoskeletal comorbidities were associated with level of disability and FAI but were not predictive of increased disability or limitation in life roles. Having a comorbid condition did not impact QoL. Conclusion: Having a comorbid condition did not impact disability, QoL, or participation in life roles among older people with MS. Individuals with MS are living long healthy lives despite comorbid conditions.

## The Impact of Social Desirability On Self-Reported Improvements in Fruit and Vegetable Consumption

Nour Redding, Jeannie Haggerty

**Context:** Evidence indicates that social desirability influences participants to portray favorable images of their selves when responding to questionnaires. Few studies have investigated how social desirability affects self-reported fruit and vegetable consumption. **Objective:** To assess whether social desirability has an impact on self-reported positive changes in fruit and vegetable consumption. **Design:** This study is a secondary analysis based on data from a prospective, longitudinal cohort study (2009-2012) assessing changes in functional health, health behaviours and health service utilization in Quebec, Canada. **Participants:** The study population (n=1966) ranged between 25 and 75 years of age, resided in metropolitan, urban, rural and remote territories served by four local healthcare networks, did not have major cognitive impairment, and were able to respond to written and oral questions in English or French. **Intervention/Instrument:** Survey questionnaires were used to elicit information about sociodemographic characteristics, functional health, healthcare usage, healthcare experience and health behaviours. Validated scales and questions were used to permit direct comparisons to the Canadian Community Health Survey (CCHS). **Outcome measures:** The primary outcome of the study is follow-up attainment of fruit and vegetable consumption targets set by Health Canada's nutritional guidelines. **Results:** Among the 1,966 adults that took part in the study, only 471 (24%) met the fruit and vegetable consumption target set by Canadian nutritional guidelines at baseline, while 609 (31%) met the target after a one-year follow-up. Fruit and vegetable consumption target attainment is significantly associated with baseline consumption target attainment (OR 10.18; 95% CI 7.88 – 13.14), being female (OR 1.58; 95% CI 1.23 – 2.02), having completed secondary school (OR 0.60; 95% CI 0.41 – 0.88) or college (OR 0.69; 95% CI 0.50 – 0.96) in comparison to university. Social desirability was not a significant predictor for the change in fruit and vegetable consumption (OR: 1.03; 95% CI 0.96 – 1.11). **Conclusion:** Social desirability does not impact self-reported fruit and vegetable consumption measures thereby implying that surveys are an accurate method for dietary assessments.

## Transdisciplinary Understanding and Training On Research-Primary Health Care (TUTOR-PHC)

Julie Matthews, Dr. Moira Stewart, Sara Wuite, Dr. Fred Burge, Dr. Graham Reid, Dr. Jeannie Haggerty, Dr. Judith Belle Brown, Dr. Roanne Thomas, Dr. Sabrina Wong

**Context:** One of CIHR's objectives is to provide leadership in building capacity within Canada's health research community through the training and development of researchers and fostering the development and ongoing support of scientific careers in health research. In 2002, Transdisciplinary Understanding and Training on Research-Primary Health Care (TUTOR-PHC) was awarded a six-year CIHR Strategic Training Initiative in Health Research Grant and in 2009, received renewal for six more years. **Objective:** The overall goal of TUTOR-PHC is to improve the evidence-base for primary health care (PHC). The objectives are: to tackle, through research, the current and future challenges in PHC and to lead and participate in collaborative interdisciplinary PHC research. **Target audience:** Trainees are recruited from all disciplines relevant to PHC and are graduate students, post-doctoral fellows, residents doing research fellowships, clinicians, or policy-makers interested in PHC research. **Description:** TUTOR-PHC delivers a one-year curriculum that begins with a three day, in-person symposium followed by online discussion groups and workshops. TUTOR-PHC's comprehensive curriculum covers all of the important aspects of PHC research including knowledge translation, interdisciplinary teamwork, multi-methods, study designs, recruitment, measures and indicators, and data analysis. The curriculum is tailored to meet the needs of the trainees. It focuses on materials, skills and strategies that trainees would not learn in their own discipline. In that way, TUTOR-PHC fills an important gap in health services research training. Each year, 12 Canadian and two International trainees are accepted

into the program. Trainees are mentored by 22 PHC researchers, representing several universities and disciplines. Evaluation: TUTOR-PHC has trained 120 graduate students, post-doctoral fellows, and health professionals since 2003. Productivity tracking of the 56 trainees who have entered the program since 2010 indicates they have published at least 177 research articles and have been investigators on at least 77 research grants. Their research programs are largely interdisciplinary, employ a diverse set of methodological approaches, and span a breadth of content areas relevant to PHC. Conclusion: The volume and quality of TUTOR-PHC's trainees' research indicates the program's success in training researchers who are able and ready to tackle the current and future challenges in PHC.

### **Trying to Stem the Tide of Chronic Disease: A Proposal For An Upstream Intervention**

Bo Miedema

**Context:** The Maritime Provinces have the highest obesity rates among adults and the lowest number of children with normal weight in Canada. **Objective:** To use a multi-disciplinary primary health care team, comprised of Certified Exercise Physiologists (CEP), Certified Personal Trainers (CPT), Registered Dietitians (RD) and a Certified Food Mentor (CFM) to teach and coach healthy lifestyles during a 3 year randomized cluster intervention to reduce childhood and adult obesity. **Target audience:** Young (prenatal) families clustered around four major cities and divided in 12 sites (urban; rural; English; French) in the Maritimes. Each site will have between 20 to 25 families. **Description:** Intervention: Once a week face-to-face meetings with a CEP and CPTs to teach and coach issues around physical activity. Once a month RDs and CFMs will teach and coach around nutritional knowledge issues. The program will also include a Virtual Health Intervention (VHI) using a web-based platform to communicate with and between participants at each site, to collect data and to impart health-related knowledge. Both the CEPs and RDs will augment their scope of practice with the lifestyle positive parenting program. **Evaluation:** Intervention and control infants and toddlers will be assessed using provincial perinatal databases and the Healthy Toddler Assessment database. Provincial Medicare administrative data will be used to measure intervention and control adults. Intervention group infants, toddlers, young children, and adults will be measured pre (T0) and post (T1 and T2) examining variables such as BMI, waist circumference, nutritional, physical activity and smoking behaviors and issues around food security, etc **Conclusion:** This project is a proposal that is still being refined and developed for the Public Health Agency of Canada (PHAC) following the accepted letter of intent. PHAC will provide half of the funding and other matching funding will have to be obtained from non-taxpayer sources. The research team includes academics, physicians, public health officers, and community members from across the Maritimes. This complex trial will have as an outcome to create healthy weights in children and adults that will reduce chronic disease "downstream" and will also provide the foundation for a Maritime longitudinal cohort study.

### **Working with Vulnerable Populations**

Barbara Albrechtsons, Glenda Stagg Sturge, Nancy Aitken

**Context:** Vulnerable populations often lack the knowledge, skills and resources required to access the health care system. It is our belief that nursing can positively influence the health and well-being of vulnerable populations. We will illustrate how nursing serves to increase accessibility to health care and health care resources and to decrease inequities for the vulnerable population. **Objective:** The presentation will outline the valuable role Community Health Nurses and Nurse Practitioners play in protecting and preserving the health of vulnerable individuals, families, groups and communities. It highlights the Canadian Community Health Nursing Standards of Practice and illustrates how the Social Determinants of Health impact the population we serve. **Target audience:** Community Health Nurses, Nurse Practitioners, Acute Care Nurses, Physicians, Social Workers and Students **Description:** Our work involves possessing a high level of autonomy and requires strong partnerships that are based on the principles of Primary Health Care. We will describe the work we do at Community Health Sites with vulnerable populations

such as street youth, refugees, single mothers living in poverty and pregnant teens. Some of the challenges we face in the delivery of care will also be discussed. Evaluation: The demand for the services and expertise of the Nurse Practitioner and Community Health Nurse is increasing at all Community Health Sites. The need for collaboration and communication with partners is essential in attempting to effectively address the health care needs of vulnerable populations. Conclusion: Vulnerable populations often defer attending to their needs for health care. It is important that all health care providers work together and be aware of inequities and the complex needs of vulnerable populations.

## Workshops

### Knowledge Translation Workshop

Jude Kornelsen

Objective: This workshop will review the field and context of knowledge translation as it applies to health services research. Content: We will explore why there is a 'know-do gap', define knowledge translation by considering its core principles and consider the 'policy pie' of influences on decision-making and the role of evidence in it. We will look at the structure of a KT plan by reviewing its component parts including how to identify audiences, how to prepare the message, determine the medium and develop an evaluation framework. Method: Interactive Design Prerequisite knowledge: None—just enthusiasm.

### The Patient's Medical Home - For Research and Education

Cathy MacLean

Objective: At the end of the workshop participants will be able to 1. describe realistic options for primary care research through the PMH model, 2. describe how the PMH can be organized to facilitate education and research 3. include patients and families in education and research within a Patient's Medical Home Content: Brief presentations on the PMH model and specifically what is proposed for NL and the DFM residency training program. A description of the opportunities for education and research from a health services delivery perspective and quality improvement will be presented drawing from the experiences of other jurisdictions. The role of Patient Advisory Councils will also be included. Method: Brief presentations and group work drawing on the audience's interests and unique opportunities in this province. Brainstorming and small group work with reporting back. Prerequisite knowledge: No prior knowledge of the Patient's Medical Home is required.

## Posters

### A Qualitative Approach to Exploring Barriers and Facilitators in Access to Child and Youth Eating Disorders Services in Newfoundland and Labrador

Michael Bartellas, Dr. Rick Audas, Dr. Olga Heath, Dr. Kate Tilleczek, Dr. Roger Chafe

Context: In Newfoundland and Labrador there was an estimated 7,300 individuals at risk of having an eating disorder (ED) in 2002. It is likely this number has risen higher in present day. This is a serious concern as the mortality rate for ED's is highest of all psychiatric conditions. There is little ED services research in this province, which creates difficulties when constructing strategies and implementing policy decisions. Objective: To identify where barriers/facilitators to provincial care currently exist for youth with an ED. Also, to determine what is working within

provincial ED health services and what is not working. Design: This study is of a qualitative descriptive style. There will be in-depth interviews with participants, which will provide a myriad of stories from their lived health care experiences. The reoccurring experiences will be highlighted, and visually represented through creation of patient journeys. Participants: Participants will include individuals who have been diagnosed with an ED in accordance with the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, and have utilized a related health service in Newfoundland or Labrador while under the age of 18 years old. The families of these individuals may also be participants or pair up with the individual if this is more comfortable for the interview. The sample size will be around 10, as to avoid a saturation of data. The aim in this qualitative approach is to have depth in the data set not breadth. Intervention/Instrument: An audio recording device will be necessary for the participant interviews. Also, a qualitative data analysis program will be required in order to carry out thematic analysis. Outcome measures: Data from participants. Results: The anticipated result is to have identified reoccurring themes among participant's experiences in the healthcare system. These themes will illustrate the barriers and facilitators to accessing youth ED services in the province. Conclusion: Along with geographical service issues, there is an extensive waiting list to receive specialized ED care in the province. Perhaps through identifying the major perceived barriers to service from the participant's perspective, targeted operational changes can be suggested. The end goal is to aid in service improvements in Newfoundland and Labrador.

### **A Study of Food Security Among the Elderly Population and Single Parents in St. John's**

Kelly Hunter, Dr. Atanu Sarkar, Dr. Martha Traverso-Yepez, Dr. Veeresh Gadag

Context: In Newfoundland and Labrador, many elderly people and single parents face challenges in their ability to purchase and consume quality healthy food. Food insecurity among the vulnerable population is associated with inter-related social, cultural, and economic factors. Exploring household practices related to food consumption, food awareness, and food purchasing practices will help us make sense of these connections. Objective: The main objective of this research is to study the ways and extent food insecurity affects food related practices among the elderly population and single parents living in St John's, NL. This poster will present preliminary results of this ongoing study's findings. Design: A mixed-method research design includes key informant interviews with professionals in the field of food security and a survey questionnaire, based on the Community Health Survey, consisting of both closed and open-ended questions. Participants: We are conducting face-to-face survey interviews and we expect to recruit a statistical sample of fifty single parents and fifty senior citizens above the age of 65, which represents about 1% of these vulnerable populations. Advisory committee members from the Food Security Network, the Single Parent Association of Newfoundland, and the Seniors' Resource Centre are helping to distribute invitations to recruit participants. Intervention/Instrument: In addition to social demographic questions, participants are asked to complete a short, 30 question survey questionnaire regarding their food purchasing and consumption practices in their household. The survey results will be entered into SPSS for quantitative data analysis, while any additional comments or answers to open ended questions will be logged as qualitative data for further analysis. Outcome measures: An assessment of participants' self-reported food practices and behaviours. Results: The results from our initial ongoing surveys indicate that—in addition to insufficient financial resources—lack of time for meal preparation, lack of transportation, and mobility issues are all factors impeding this population's ability to consume quality nutritious foods. Conclusion: The conclusions from this research will help to point out health consequences of food security, as well as the need for more effective government supports and interventions.



## **A Surgical Waste Audit of Laparoscopic Cholecystectomies at St Clare's Mercy Hospital Operating Room**

Ainsley Decker, Ms. Tiffany Aylward, Dr. Jeremy Pridham, Dr. Michael Bautista

**Context:** Since the 1980's, health care waste has increased as blood-borne illnesses were recognized. Although operating rooms take up a relatively small physical area within a hospital, they are estimated to produce 20-30% of a hospital's total waste. The sustainability of our health care system and our planet is negatively impacted by the negligence of the effect that the delivery of healthcare has on the ecosystems of our planet. **Objective:** To quantify the amount of potentially recyclable waste associated with laparoscopic cholecystectomies at St. Clare's Mercy Hospital, St. John's, NL. **Design:** A surgical waste audit. **Participants:** Twenty laparoscopic cholecystectomies were audited between March and May 2014 from six consenting surgeons. **Intervention/Instrument:** All surgical waste from each of the 20 laparoscopic cholecystectomies was categorized into six streams: normal solid waste, recyclable waste, biohazard waste, sharps, blue sterile wrap and linens. The volume and weight of each stream was quantified. Data on the number of laparoscopic cholecystectomies performed in Newfoundland and Labrador during 1 fiscal year was obtained from the Newfoundland & Labrador Centre for Health Information. This information was used to estimate annual weight and volume of waste produced by all laparoscopic cholecystectomies in the province. **Outcome measures:** To quantify potentially recyclable materials used in laparoscopic cholecystectomies. **Results:** The average total waste (excluding linens) per laparoscopic cholecystectomy at St. Clare's Mercy Hospital was 6.26 kg, of which 3.70 kg (59%) was normal solid waste, 0.97 kg (15.5%) was biohazard waste, 0.55 kg (8.8%) was blue sterile wrap, 0.51 kg (8.1%) was recyclable waste and 0.54 kg (8.6%) was sharps. By extrapolation we estimated that the 1511 laparoscopic cholecystectomies performed in the province in 2012-2013 contributed 7177 kg by weight and 310 m<sup>3</sup> by volume to landfills. **Conclusion:** Although laparoscopic cholecystectomies are not the leading waste generating surgeries they still produce considerable amounts of waste. The preliminary data obtained from this waste audit indicate that better waste management strategies in the operating room could reduce the amount of waste ending up in landfills. Future directions include investigations into the cost effectiveness and environmental impact of a waste reduction and recycling program in the operating room.

## **Advance Life Support: Resuscitating the Family Medicine Curriculum**

John Campbell, Lynn Power, Steve Parsons, Richard Lush, Mark o'Driscoll

**Context:** Globally more than 1.5 million health care professionals attend advanced resuscitation (ALS) courses. Competency in advanced life support is a component of both undergraduate and post-graduate medical education. A variety of educational strategies are employed in the ALS courses to facilitate the knowledge, skills and behavioral development required to achieve competency. Currently the ALS courses use a combination of written material, interactive lectures, small group teaching, group discussion and practice scenarios to train students. Subsequently, substantial resources are invested in this type of training and each year. **Objective:** To determine the optimal, most cost-effective training schedule, given the limitations of time and resources, for incorporating ALS courses into the post-graduate family medicine curriculum. **Design:** Literature search using original articles from Medline, CINAHL, Cochrane Library, Pub Med supplemented by reviewed reference citations to identify additional studies. **Participants:** N/A **Intervention/Instrument:** N/A **Outcome measures:** Articles are to be evaluated with a structured approach and outcomes organized by evaluation method, and knowledge and skills retention. **Results:** Research in progress **Conclusion:** This abstract describes research in progress. It appears that ALS knowledge and skills decay by six months to one year after training with skills decaying faster than knowledge. This time frame is significant, as many post-graduate family medicine residency programs conduct ALS training at fixed points in the first year of residency and as such many graduates may be starting practice with expired skill sets.

### **Advancing Primary Healthcare For Persons Living with HIV in Canada**

Shabnam Asghari, Liddy C, Rourke S, Kaposy C, Becker M, Caetano P, McGee F, Kendall C

**Context:** HIV is an increasingly complex chronic condition and disproportionately affects marginalized populations, requiring a new paradigm of HIV care delivery. **Objective:** The Living with HIV (LHIV) Innovation Team has begun a five-year, multi-centre, multi-provincial (ON, NL, MN) program of linked research-to-action projects that will: Create a better understanding of the health, healthcare utilization, and quality of care of persons living with HIV. Implement and evaluate an integrated care model for HIV care delivery in our affiliated clinics. Examine the patient's perspective of receiving care through a primary healthcare approach. Build a new, highly skilled, interdisciplinary HIV primary healthcare team including researchers in primary and HIV care delivery, clinicians, community-based agencies, people with lived experience, and policymakers. **Design:** Project 1: A quantitative study to create comprehensive provincial population-based cohorts of persons living with HIV (LHIV Cohorts) to compare health, utilization and quality of care across jurisdictions. Project 2: A quantitative study to delineate cross-cutting (HIV/ Primary Health Care) quality indicators to create a Canadian LHIV performance framework. Project 3: A mixed-methods study to implement an integrated care model using electronic consultation, using the established electronic consultation program. Project 4: An institutional ethnography study to develop a toolkit for providers navigating ethical issues arising in HIV practice. Project 5: A pilot study to implement and evaluate LHIV self-management tools. **Participants:** Policy makers, physicians, primary care providers, specialists and persons living with chronic HIV **Intervention/Instrument:** Multiple Outcome measures: Multiple Results: Various projects will help determine how healthcare for persons living with chronic HIV can best be delivered **Conclusion:** Important program of research with significant policy and practice implications

### **An Electronic Diary For Adolescents and Young Adults with Headaches: Evaluation of Its Feasibility and Psychometric Properties**

Cathy MacLean, Anna Huguet, Patrick McGrath, Michael Wheaton, Sean P Mackinnon, Sharlene Rozario, Michelle Tougas, Jennifer Stinson

**Context:** Primary headache disorders are one of the top 20 causes of disability in the world and is common among children and young adults. Primary care physicians often recommend patients to self-monitor their headaches with a diary because it will provide accurate information that can help with treatment planning more effectively. With a steady growth in the number of electronic headache diaries available to the public, the majority of diaries do not meet minimum quality standards, compromising physicians' and sufferer's ability to rely on them. **Objective:** Our goal was to design and test the usability, feasibility, and psychometric properties of an electronic diary for adolescents and young adults with headaches. **Design:** An iterative participatory design process was used to test usability and feasibility, after which the final version underwent psychometric testing. **Participants:** Headache sufferers aged between 14 and 28 years were recruited nationally and internationally **Intervention/Instrument:** The final diary version that was created tracked temporal, sensory, and affective aspects of headaches, the impact of headaches on daily life, potential headache triggers, and strategies used to cope with or prevent new headaches. **Outcome measures:** Adherence, use, acceptability as well as numerous psychometric measures **Results:** It took three iterations in which 43 participants were involved to reach a feasible and usable electronic diary. The 13 participants involved in the third iteration felt that the diary was understandable, easy to learn how to use, acceptable, and efficient. Further analysis of diary entries showed acceptable levels of adherence with the diary when used for a period of 14 days. For the psychometric study, in which 65 participants took part, all items in the diary showed to have substantial between- and within-subjects variability. Critical elements of the diary also demonstrated adequate convergent and concurrent validity. **Conclusion:** This diary may have clinical uses by family physicians who want to assess more accurate and

meaningful information about their patient's headaches, in order to provide more effective treatment. It also provides a feasible, usable tool which is psychometrically sound for users to track information related with their headaches, and see what could potentially be precipitating episodes, and what they have done to effectively cope with them.

### **An Investigation of Baby-Led Weaning Considering the Perspectives of Healthcare Professionals and Mothers Residing in Newfoundland and Labrador**

Elisa D'Andrea, Kielyn Jenkins, Barbara Roebbothan

**Context:** Baby-led weaning (BLW) is a method of introducing complementary foods to infants as an alternative approach to traditional spoon-feeding. BLW promotes the introduction of whole, finger foods at 6 months of age, allowing infants to self-feed. Anecdotal evidence suggests this practice is increasing in popularity among mothers in Newfoundland and Labrador (NL), however, to date, BLW has not been examined in a Canadian population. **Objective:** The objective of this study is to investigate BLW from the perspective of mothers and healthcare professionals to identify perceived advantages and disadvantages of this practice. **Design:** This is a quantitative, cross-sectional study with data collected via two on-line questionnaires. One questionnaire will be administered to healthcare professionals practicing in NL. The second questionnaire will be administered to mothers who self-identify as following BLW on the NL BLW Facebook page. **Participants:** A convenience sample of healthcare professionals, males and females, working in NL who encounter young mothers in a professional capacity. A convenience sample of mothers, residing in NL, who are currently practicing BLW or have done so in the past. **Intervention/Instrument:** Two questionnaires, one for healthcare professionals and one for mothers, have been adapted from a New Zealand study (Cameron et al, 2012) investigating this topic on the key themes of: knowledge of, attitudes toward, and experiences with BLW. **Outcome measures:** Responses will be compiled and presented as knowledge of, attitudes toward and experiences with BLW. Data collected from the two groups will be compared. **Results:** Findings should include an identification of perceived advantages and disadvantages of following BLW. We hypothesize that responses pertaining to BLW will differ between mothers and healthcare professionals. Data will be collected (pending ethics approval) and analyzed in early summer 2014 and preliminary results will be available for presentation in September. **Conclusion:** BLW is one method of introducing complimentary foods to infants. There is anecdotal evidence to suggest that mothers practice BLW in NL, however, the extent to which the approach is used remains unclear. It is important to understand how this weaning method is defined, understood and utilized by mothers and if healthcare professionals are aware of and support this new practice.

### **Assessing Heart Failure Cardiac Hemodynamics Utilizing Non-Invasive Technology**

Fadi Khraim, odolfo Pike RN BN MN NP, Jennifer Williams RN BN NP

**Context:** : Approximately 500,000 Canadians live with Heart failure and 50,000 new cases are diagnosed each year. Newfoundland and Labrador has the highest prevalence of heart failure in the country (1.3%). Impaired cardiac function related to heart failure is a major cause for mortality, morbidity, and poor quality of life. Therefore, knowledge of heart failure hemodynamics and disease progression may potentially improve disease detection and management. **Objective:** To explore and describe cardiac hemodynamics in persons with heart failure using non-invasive technology. **Design:** A descriptive study that utilizes impedance cardiography to assess hemodynamics of patients with heart failure is currently being conducted **Participants:** Patients with heart failure who are treated at the heart failure clinic in the Health Science Center in St. John's are currently being recruited **Intervention/Instrument:** BioZ<sup>®</sup> Impedance cardiography is a non-invasive, safe, and inexpensive technology that allows measurement/estimation of various indices of cardiac function **Outcome measures:** Cardiac hemodynamics including cardiac output, systemic vascular resistance, and thoracic fluid content will be measured on every participant over course of three consecutive

visits to the clinic. Other measures that are also explored include current medications and comorbidities Results: Preliminary findings and their potential implications will be presented in the poster. Conclusion: Potential conclusions will be presented in the poster.

### **Diabetes Complications and Comorbidities in Patients Newly Diagnosed with Diabetes in NL: Gender Differences**

Richa Parihar, Dr. Shabnam Asghari

Context: Diabetic patients are known to develop complications and co-morbidities as a result of the disease. Determining gender susceptibility to diabetic complications can lead to improved patient-centered care for patients. Objective: To examine the gender differences on complications and comorbidities in patients newly diagnosed with diabetes in NL Design: A retrospective cohort study, patients were followed for 5 years from the date of diagnosis, between 1998 to 2003, till their deaths or end of study (2008), whichever came first. Participants: The study included individuals who were newly diagnosed with diabetes aged 20 years and older were identified. Gestational diabetes was excluded Intervention/Instrument: Participants were identified using provincial medico-administrative data obtained from the Canadian Chronic Disease Surveillance Outcome measures: Diabetes complications and comorbidities were defined as any record for cardiovascular disease, renal failure, end stage renal disease and lower-extremity amputation during the study period. Late diagnosis was identified as any record for complications at the time of diagnosis. Other variables included healthcare utilization (number of visits with family physicians, specialists and hospitalizations) and place of residence. Analysis: Descriptive analysis as well as multiple logistic regressions. Results: There were 20,292 patients, mean age 60( $\pm$ 15); 50% were women. Majority of the patients (63%) belonged to urban areas. Approximately, 17% of the men and 13% of the women had a late diagnosis ( $p < 0.000$ ). Five year after diagnosis, 27% and 18% of men and women respectively had at least one complication, while 18% of men and 16% of women had died during the study period. Men were more likely to develop diabetic complications than women (OR = 1.63, CI 1.51-1.75) after being accounted for age, late diagnosis, place of residence and healthcare utilization. Conclusion: Men are prone to late diagnosis and developing more diabetic co-morbidities than women in NL. The differences in the healthcare utilization and the susceptibility to late diagnose in males can account for the differences observed between gender. Therefore, the gender differences in health and healthcare should be taken into account in diabetes management. Further research is required to determine the biological and healthcare factors.

### **Evaluating an Interprofessional Education Workshop on Mood Disorders for Community Counselors**

Grigore Radu, Gregory Harris, PhD, Faculty of Education and Weldon Bonnell, MD, MSc, Faculty of Medicine

Context: Mood disorders are common and cause a high degree of disease burden in our community. Due to the complex needs of individuals who suffer from mood disorders there is a significant need for community based programs which assist them in achieving high levels of remission, self-reliance, independence, resilience and social integration. The providers of such programs must be knowledgeable about mood disorders. Objective: To evaluate an education workshop focused on teaching community counsellors about various dimensions of mood disorders. Design: The first author delivered a workshop to 29 community counsellors on classification, diagnostic criteria, epidemiology, treatments and client psychoeducation related to mood disorders. Attendees completed matched pre and post-workshop self - assessments. Participants: Stella's circle is a leading social services agency in St. John's offering a range of counselling services. The majority of their clients suffer from persistent mental illnesses including mood disorders. Twenty-nine participants employed by Stella's circle attended the workshop and 26 participants completed

pre and post-workshop self-assessments. Intervention/Instrument: Attendees completed matched pre and post-workshop self-assessments that rated their perceptions of their knowledge of different areas related to mood disorders and ability to work with such clients. Outcome measures: Core outcome measures included areas such as: participant perceptions of their comfort and ability to conduct diagnostic assessments and therapeutic interventions with people with mood disorders. Results: Participants reported being more comfortable and confident in conducting diagnostic and therapeutic interventions ( $t=-4.80$ ,  $p<.001$ ;  $t=-3.92$ ,  $p=.001$ ), increased belief that they had adequate theoretical and practical training ( $t=-3.34$ ,  $p=.003$ ), increased belief that they had appropriate attitudes to conduct diagnostic and therapeutic interventions ( $t=-4.71$ ,  $p<.001$ ), increased view that they can establish an effective therapeutic relationship ( $t=-5.12$ ,  $p<.001$ ), increased perception of sufficient awareness and knowledge ( $t=-3.79$ ,  $p=.001$ ), and increased view that they have the requisite skills to conduct diagnostic and therapeutic interventions with people with mood disorders ( $t=-3.54$ ,  $p=.002$ ). Conclusion: Participants reported improvements of their knowledge, confidence, competence and attitudes when working with clients with mood disorders. Developing an educational program that provides community counsellors with brief workshops on mood disorders appear promising to enhance confidence. Future research should assess knowledge and skill acquisition and potential practice change.

### **Examination of the Effects of Primary Healthcare Reform Using Health Administrative Data**

John Knight, Kris Aubrey, Marshall Godwin, Kayla Collins, Richard Cullen

Context: In Canada, health care expenditures are high yet population level health outcomes are mediocre. Primary care reform initiatives aim to remedy this by strengthening the delivery of primary care, thereby producing healthier Canadians and decreasing system costs. Newfoundland and Labrador received \$9.7 million from the Primary Health Care Transition Fund for implementation of reforms including: establishing primary health care (PHC) teams, physician networks, and PHC networks; maximizing scope of practice; improving access; promoting community input and capacity building; maximizing involvement of individuals and communities; improving information and communication technology; and evaluation. Objective: (1) Examine the effects of various PHC reforms on patient outcomes; (2) Examine and develop methodology for studying PHC reform in other jurisdictions. Design: Population-level linkage of health administrative and socio-demographic data including: health insurance registry, physician claims, hospital abstracts, death records, physician characteristics, and census data. We will utilize a cross-classified Multilevel Regression Model with three levels: Patient, Neighborhood, and Physician, including several co-variables at each level. Patients are assigned to a physician using Usual Provider Continuity index based on physician claims data. Participants: Adult Patients in the province of Newfoundland and Labrador, Canada Intervention/Instrument: Co-variables and outcomes from hospitalization and mortality data will be compared (1) pre- to post-intervention and (2) between communities that underwent reform compared to control communities. Study periods correspond to implementation of PHC Transition Fund: Pre-Intervention (2001-2003); Intervention (2004-2006); Post-intervention (2007-2009). Outcome measures: Hospitalizations for 3 categories of ambulatory-care sensitive conditions (ACSCs): (chronic, acute, and vaccine-preventable), as well as mortality. Results: Results will aid in clarifying the relative effectiveness of primary care reforms with regard to improving clinical outcomes. Conclusion: Findings will aid policy-makers in determining the best options for improving both cost-effectiveness of care and patient outcomes and may be useful in other jurisdictions.

### **Exploring Pharmacists' Expectations of Competent Family Physicians**

Katherine Stringer, Shabnam Asghari, Vernon Curran, Carla Dillon, Danielle OKeefe

Context: Effective Interprofessional collaboration is an integral part of the successful practice of Medicine. It requires that a profession not only clearly describe their own roles and responsibilities to other professionals, but also have an awareness of other professions' competencies in relation to their own. Pharmacists and family physicians have

both developed their own set of competencies. These two professions collaborate on a regular basis. To date there has been little work undertaken on pharmacists, or other professions' expectations or knowledge of family physicians' competencies and how this may inform the interprofessional collaborative relationship Objective: 1. To develop a definition of family medicine competencies (set of knowledge and skills) from the view point of collaborating pharmacists. 2. To compare this definition to that already defined by the College of Family Physicians of Canada (CFPC). Design: Survey research using a delphi process to achieve consensus. Participants: Pan Canadian pharmacists identified through purposeful sampling to ensure variation, beginning initially in Newfoundland. Sampling will continue until saturation is achieved. Intervention/Instrument: The survey will be developed using an iterative approach, the first draft using the CFPC framework of Core Competencies in Family Medicine, a literature review and input from an interprofessional working group from the Discipline of Family Medicine at Memorial University. Outcome measures: Descriptive analysis and rank order of competencies will be used to develop a list of competencies, which will be compared to those already defined by the CFPC. Results: Survey results received and analyzed thus far will be presented. Conclusion: If significant discrepancies are noted between expectations of family physicians by pharmacists as compared to those already defined by the CFPC, this would identify the need for further academic collaboration in developing structured interprofessional educational experiences

### **Intraductal Papillomas: Audit of the Local Excisional Upstage Rate to Malignancy**

Melanie Stenback, Alex Botsford, Dr. Connie Hapgood

Context: Intraductal papillomas are classically defined as benign proliferative breast lesions. However, these benign lesions have a highly variable risk (2-36% in current literature) of harboring associated malignant ductal carcinoma in situ or invasive carcinoma once surgically excised. Objective: To determine the local excisional upstage rate to malignancy of intraductal papillomas diagnosed on core needle biopsy in St. John's – based hospitals. Design: Retrospective quantitative cohort analysis. Participants: Those women with a papilloma diagnosed on core needle biopsy in St. John's from January 2008 to September 2013 (n=33). The age of the patients ranged from 39 to 76 years (mean = 56 years). Intervention/Instrument: Using the MEDITECH and PACS database, all papillomas diagnosed on core needle biopsy from January 2008 to September 2013 in St. John's were identified. Excisional pathology and radiologic information was gathered and correlated for each patient. Outcome measures: Final histologic diagnosis of surgically excised specimens – benign vs. malignant. Results: 33 women were found to have an intraductal papilloma on core biopsy, and 7 (21%) out of the 33 had a papilloma with histologic atypia. In 30 of the 33 identified lesions, surgical excision was performed. The frequency of malignancy was 8 (26%) of 30, and 7 (100%) out of 7 lesions with atypia. Conclusion: Intraductal papillomas diagnosed at core biopsy are frequently (26%) associated with malignancy. At present, the general protocol in Newfoundland and Labrador is surgical excision of all intraductal papillomas initially identified on mammography and diagnosed by core needle biopsy. In some centers however, many of these lesions are followed up mammographically. Variation in management of intraductal papillomas can largely be attributed to the small number of studies conducted to determine the upstage rate to malignancy. This study demonstrates that despite the cost and invasive nature of lumpectomies, they are warranted as a diagnostic and therapeutic tool for intraductal papillomas, particularly when atypia is identified.

### **Male Motivations to Study a Formal Education in the Occupational Therapy Field**

Patrick Whalen, Gawain Tang, Bonny Jung, Michale Chan

Context: Occupational Therapy (OT) has traditionally been a female dominated profession and males made up only 7.6% of the OT workforce in Canada in 2009. This gender disparity impacts the way males are represented in OT as a minority group of practicing therapists. Assistant/Physiotherapy Assistant (OTA/PTA) at Mohawk College. This study was designed in order to find a recognizable pattern of male perceptions that influence their reasons

for pursuing an education in the OT profession Objective: To explore the factors that encourage males to thrive in OT & OTA programs and to investigate their lived experience Design: A phenomenological approach using Semi-structured interviews was completed. Participants: Interviews was completed with 5 student OTs and 5 student OTAs resulting in an 83% participation rate Intervention/Instrument: Interview data (n=10) were transcribed and coded into themes using NVivo 9 Outcome measures: The analysis followed Creswell's (1998) qualitative study guidelines Results: Three key themes were congruent among participants: 1) The existence of male specific qualities that were beneficial in building a therapeutic relationship 2) The impact of social experiences in class and on clinical placement towards male performance and participation 3) The implementation of different strategies to draw more males into the field of Occupational Therapy Conclusion: Male OTs and OTAs bring advantageous qualities to the female dominated professions. Gender disparity continues to provide social challenges for males, and improvements can be made to increasing male representation in the OT field.

### **Medication Management By Community Pharmacists Among NL Prescription Drug Program Clients**

Carla Dillon, Erin Davis, Jason Kielly

Context: Medication Management (MM) encompasses a variety of activities by pharmacists to optimize safe, effective and appropriate drug therapy. In 2010, Newfoundland & Labrador (NL) Pharmacy Regulations changed to permit MM by pharmacists (i.e., providing an interim supply, prescription extension, and prescription adaptation). In June 2012 the NL Prescription Drug Program (NLPDP) agreed to pay pharmacists for MM services provided to their beneficiaries. A recent 1-year study in a NL family medicine clinic found that only 4.6% of patients received MM services. Prescription extension was the most common subcategory (56%) while prescription adaptation was rare (less than 1%). Our study will review MM claims received by the NLPDP to ascertain if these findings hold true on a broader scale. Given the potential to optimize patient care, a better understanding of local MM use may improve the process for pharmacists, prescribers and patients. Objective: To determine trends in the use of MM among NLPDP clients by NL community pharmacists. Design: Cross-sectional study of NLPDP data for MM claims from June 2012 to May 2014. Participants: All claims to NLPDP for MM will be eligible. Intervention/Instrument: MM claims are recorded in NLPDP's central database with a Canadian Pharmacists Association intervention code indicating the specific service provided, along with the associated claim data (e.g., patient/pharmacist information, rationale for intervention). Outcome measures: MM by NL community pharmacists among NLPDP clients. Subcategories of MM (interim supply, prescription extension, prescription adaptation). Analysis will include frequencies, means, standard deviations, medians and interquartile ranges as appropriate. Results: We anticipate that MM use by pharmacists among NLPDP clients will be low (10% or less), as was seen in the 1-year family medicine study. The most common MM subcategory will be prescription extension, followed by providing an interim supply. Use of prescription adaptation will be low. Conclusion: Analysis of MM prevalence and trends will conclude in the Fall of 2014. Follow-up research will include identification of barriers and enablers to pharmacists' use of MM in NL.

### **Perception of People Living with HIV On Access to Healthcare: Protocol of Search For a Scoping Review.**

Hilary Modir, Shabnam Asghari, Hilary Modir, Alison Farrell, Claire Kendall, Sharon Johnston, Matthew Hogel, Sean Rourke, Clare Liddy

Context: People living with HIV (PLHIV) face several challenges to accessing health care. Overcoming these barriers requires characterization of the PLHIV perspective. Patients' views of access to healthcare may differ from healthcare providers and decision-makers. However, patients' beliefs and desires influence their engagement and ongoing

access to care, and communication with their providers. Objective: To retrieve studies on the perspective of PLHIV regarding access to healthcare and to provide a scoping review of this literature with particular attention to the universal Canadian healthcare system. Design: A scoping review of quantitative, qualitative and mixed-method studies. Participants: N/A Intervention/Instrument: Method: A comprehensive search for peer-reviewed publications was conducted in electronic databases including PubMed, EMBASE, CINAHL, PsycINFO and the Cochrane Library. Medical Subject Headings (MeSH), and keywords for three concepts, (1) HIV/AIDS; (2) patient perception; and (3) access to healthcare; were reviewed to identify the best search terms and combinations of these concepts. A Search protocol was created in consultation with content experts, methodologists and a librarian and then validated against the “gold standard” studies proposed by these experts. A directory of retrieved articles was created in Refworks. Study selection is an iterative process consisting of searching the literature; refining the search strategy; assessing the eligibility criteria; pre-screening and reviewing the full text of retrieved articles for inclusion. Only articles concerning the PLHIV perspective on access to healthcare are retained. Outcome measures: Analysis: Extracted data will be collated, synthesized and thematically analyzed. Results: The study is currently in progress. In a preliminary literature search, approximately 13,000 articles were identified. We are now in the phase of validating the search protocol and pre-screening. Conclusion: The study portrays the effort to broadly and systematically identify, classify and synthesize literature on PLHIV’s perspective of access to healthcare. The outcomes would be valuable to a range of knowledge users, decision makers, organizations, and researchers in developing and implementing a patient-oriented healthcare program for PLHIV.

### **Pluralistic Healing in Canada: Perspectives of Indigenous Health Experts and Scholars On Integrated Healing**

Christine Shearer

Context: Individuals in Indigenous communities do not enjoy the same health status as those in non-Indigenous communities. Many communities live in third world conditions and have a corresponding lower life expectancy that results in higher mortality, morbidity, and a lower quality of life. Research has suggested that integrating Indigenous healing practices with biomedical practices may be the solution to decreasing the health divide between the two types of communities. Unfortunately, there has been a paucity of research into the opinions of Indigenous medical practitioners and scholarly experts on the suitability and plausibility of such a course of action. Objective: The purpose of this research is to determine the opinions of Indigenous experts and health knowledge holders on the integration of Indigenous healing methods with the biomedical system in the Canadian context. It is intended to determine if integration is possible and wanted, and what barriers to its success may exist. Design: This research uses a decolonizing and ethnographic methodology, with critical theory as the framework for enquiry. Fifteen participants from across Canada were recruited, using a combination of contact with known experts and a snowballing recruitment method. Participants: physicians/medical practitioners; nurses/midwives; scholars Intervention/Instrument: In depth interviews with open-ended questions. Outcome measures: Not applicable. Results: Preliminary data indicate themes of: self-determination, barriers, examples of what works, communication, cultural sensitivity, and what is needed in research and from what approach (Indigenous, or Euro-American academic quantitative/qualitative). Conclusion: It is expected that this research will set the groundwork for a model that may successfully integrate Indigenous healing practices within the Canadian biomedical system.



## **Predictors of Early Insulin Use in Patients with Type 2 Diabetes: A Cross-Sectional Study**

Waseem Abu-Ashour, William K. Midodzi, Laurie Twells, John-Michael Gamble

**Context:** There is debate about the optimal timing of initiating insulin therapy to manage hyperglycemia in type 2 diabetes. Furthermore, it is unclear which patients are most likely to initiate insulin early after diagnosis. **Objective:** To determine the factors associated with early use of insulin following a diagnosis of type 2 diabetes. **Design:** This is a cross-sectional study conducted in Canada. **Participants:** Adults with type 2 diabetes using insulin who responded to the Canadian Community Health Survey (CCHS) 2012 annual component. The survey contains nationally representative data on health determinants, health status and health system utilization. Of the respondents, 4,785 patients self-reported as having a diagnosis of type 2 diabetes. **Intervention/Instrument:** Canadian Community Health Survey (CCHS) 2012 annual component. **Outcome measures:** Early insulin users were defined as survey respondents who started insulin less than one year following their diagnosis of type 2 diabetes. Characteristics among early and late insulin users were compared using Chi-squared and t-tests as appropriate. Multivariable logistic regression was used to identify independent predictors of early insulin use. Several potential predictors were examined in the multivariable regression model including sociodemographic, health behavior characteristic, comorbidities and health related quality of life. Results are presented in terms of adjusted odds ratios (aORs) and 95% confidence intervals (CIs). **Results:** There were 1,169 insulin users, of which 35% (n=405) were defined as early insulin users. Younger (<60 years) versus older ( $\geq 60$  years) survey participants (adjusted odds ratio (aOR) 1.9, 95% CI 1.4-2.6) and those overweight (BMI 25.0-29.9 kg/m<sup>2</sup>) versus normal or underweight (BMI  $\leq 24.9$  kg/m<sup>2</sup>) (aOR 0.4, 95% CI 0.3-0.6) had the most significant association with early use of insulin. Significant factors that were associated with early insulin use were post-secondary versus no secondary school diploma (aOR 0.7, 95% CI 0.5-1.0), English versus a Non-English or Non-French as the first official language (aOR 0.4, 95% CI 0.2-0.8), and former smoking versus never smoking status (aOR 0.7, 95% CI 0.5-0.9). **Conclusion:** Age, weight, education, English as an official language and smoking status, were associated with initiating insulin use within one year of a diagnosis of type 2 diabetes.

## **Professional Over-the-Phone Interpretation to Improve the Quality of Primary Care For Migrants: A Feasibility Study**

Emily Parkinson, Dr. Ellen Rosenberg

**Context:** In Canada, health disparities exist between limited language proficient (LLP) and English/French proficient patients, principally in quality and access to care. The provision of professional interpreters (PIs) during medical encounters has been shown to improve the quality of care and health outcomes of LLP patients. Despite the growing number of LLP patients, PIs are rarely engaged in Montreal primary care settings. **Objective:** The primary objectives of this study are to, a) investigate the feasibility of professional over-the-phone interpretation (OPI) as a tool for overcoming communication barriers in Montreal primary care settings, and b) obtain precise estimates of the number of LLP patients served at two Montreal primary care clinics over three months (i.e., the need for PIs), and the OPI service usage by family physicians at the same two clinics during that time period. **Design:** Quantitative evaluation design: self-administered questionnaires will be distributed to family physicians before, during and after the three-month pilot phase to evaluate the perceived value and ease of use of OPI. Participating family physicians will record the number of LLP patient encounters, and OPI usage is routinely tracked by the service provider. **Participants:** All 147 family medicine physicians and residents from the selected research sites are invited to participate. Care providers are strongly encouraged to first attend an information/training session on how, why and when to engage PIs. **Intervention/Instrument:** OPI services will be introduced into two Montreal primary care clinics for three months. Standard examination room telephones with speaker option will be used to access remote PIs at any

time in the patient's preferred language. Outcome measures: Outcome measures include: number of LLP patient encounters, OPI usage (by language), and survey results. Results: Information on the gap between the demand for and usage of PIs in primary care, as well as insight into the feasibility of OPI as a means of overcoming communication barriers in this context. Conclusion: This will be the first trial and evaluation of OPI in Quebec outpatient settings. Demonstrating the demand for and benefits of language support encourages its long-term integration. Physicians' perspectives are essential for determining how interpretation services can be made more accessible/relevant to care providers' daily routine.

### **Psychosocial Aspects of Living with the Risk of Sudden Death Due to ARVC: Genetic Testing Decisions**

Holly Etchegary

Context: Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) is a heritable, progressive disease of the heart muscle, often culminating in life-threatening ventricular arrhythmias, sudden cardiac death (SCD) and/or biventricular heart failure. Despite the gravity of a diagnosis of ARVC, there is a paucity of research exploring the psychosocial aspects of decision making for undergoing genetic testing. Objective: This study used semi-structured interviews to explore the genetic testing decisions of 21 individuals across 17 families segregating a well-studied, particularly lethal form of ARVC caused by a p.S358L TMEM43 mutation. Design: This is a qualitative descriptive study. Participants: 21 participants completed an interview; four were spouses whose partners had tested positive for the TMEM43 mutation. 17 were once at risk of inheriting the TMEM43 mutation. Of the seventeen participants who had genetic testing, nine were mutation carriers (two adolescents). Of these nine participants, eight had an implantable cardioverter defibrillator (ICD), while the youngest participant did not. Intervention/Instrument: Qualitative interview Outcome measures: Description of genetic testing decisions for ARVC Results: Participant narratives revealed that genetic testing decisions were rarely described as 'decisions' per se, but rather 'something that had to be done.' This perception was attributed to personality type or personal suspicion of carrying the TMEM43 mutation, but most often was described in the context of testing for other family members, usually children. Participants related a strong need to rule out risk, more for children than for themselves, but lingering doubts remained about personal and children's risk for ARVC, even when gene test results were negative. Conclusion: Study findings highlight the interdependent nature of genetic-test decisions and suggest an individualistic conception of autonomy in genetic services may not meet the needs of affected individuals and their families. Findings also suggest the need for follow-up support of families affected by ARVC, including for those individuals testing negative for the family mutation.

### **Refugee Health An Examination of Interim Federal Health Program in St. Johns Newfoundland**

Christopher Olsen

Context: Since 1957, Canada has made a commitment to offer health services to improve the wellness of government sponsored refugees, asylum seekers, and claimants by means of the Interim Federal Health Program (IFHP). In April 2012, Citizenship and Immigration Canada announced cutbacks to the IFHP, with little attention paid to the needs of users or the necessity of the program. Many health practitioners and officials demonstrated in opposition to the government changes, which had been advocated on the basis of a belief that the care received under the IFHP was better than that provided to Canadians and thus undeserved. Objective: My research provides an evidence-based critique of the policy changes and their underlying assumptions, through an examination of how the IFHP operates in Newfoundland and Labrador. Design: Drawing on a critical ethnographic methodology, this study uses Foucaultian discourse analysis and key informant interviews to offer a critique of the policies associated with the IFHP. Participants: Health service providers and settlement service providers. Intervention/Instrument: N/A

(qualitative research) Outcome measures: N/A (qualitative research) Results: In this poster presentation, I report on the research process, background on refugee policy in Canada, the study design, and the challenges encountered. Conclusion: I pose that federal policy and coverage of such complexity requires consultation and context derived from each provincial health insurance system with which coverage interacts. These consultations are necessary to create services that best match needs of the clientele served.

### **The Burden of Osteoarthritis: Use of Hospital Services and Prevalence of Comorbidity Among OA Inpatients in Newfoundland and Labrador**

Jennifer Woodrow, Dr. Peter Wang

Context: As the most common form of joint disease, osteoarthritis (OA) is associated with high economic burden, attributable to the effects of disability, comorbid disease, and the expense of treatment. Research suggests OA patients incur significantly more costs for therapeutic procedures, in-hospital care, imaging and laboratory services, physician services, and equipment compared with non-arthritic patients. Research also indicates OA patients are characterized by high comorbidity burden which is directly associated with health service utilization, societal and personal costs, poorer quality of life, and increased risk of hospitalization and mortality. Objective: 1. Examine the types and associated costs of hospital services used by OA inpatients (cases) compared to the general hospitalized population (controls) in NL. 2. Assess the types and prevalence of comorbidity among OA inpatients compared to the general hospitalized population in NL; examine the financial impact of OA-related comorbidity. Design: Case-control study Participants: Participants for this case-control study will be identified from the hospital Discharge Abstract Database (through NLCHI) for fiscal years 2007 to 2011. Cases will consist of acute-care and day surgery inpatients having an ICD code for OA on any discharge record in the prescribed time frame. Controls will be selected from non-OA inpatients (OA not listed on discharge record), matched on age, sex and year of discharge. Intervention/Instrument: N/A Outcome measures: Descriptive statistics will compare socio-demographic data and type/number of comorbid conditions between cases and controls. The type and frequency of hospital procedures and services will be compared for cases and controls and the associated costs will be computed using average hospital weighted case value and resource intensity weights. Regression analysis will also evaluate any potential association between the cost of hospitalization and the types and count of comorbid conditions. Results: This project is currently in the data collection stage; preliminary results may be available during the conference. Conclusion: Outcomes will inform provincial frameworks for chronic disease prevention/management and healthy aging. This data is vital when planning for an anticipated upsurge in OA due to the aging population.

### **The Impact of Food Labels: An Investigation of Food Label Usage and its Possible Association with an Unhealthy Preoccupation or Obsession with Eating Healthy Food in a Sample of Young Adults in Eastern Newfoundland**

Kielyn Jenkins, Elisa D'Andrea, Barbara Roebbothan

Context: As a result of the rise in obesity and associated chronic disease, various stakeholders including government, non-government agencies, and the food industry have promoted an increase in both the amount and type of labeling used on food packaging to aid consumers. Emerging evidence suggests that many consumers do use these labels appropriately. However, there is preliminary data to suggest that some consumers 'misinterpret' food labels and that this could lead to misinformed and misguided decisions around food choices and practices. For a variety of reasons, a preoccupation with food tends to be increasing in Western society. Orthorexia, a recently labelled practice, refers to an unhealthy obsession or preoccupation with eating healthy food. It is of benefit to understand the impact of food labels. Could it be that they may be associated with Orthorexia? Objective: The purpose is to study young adults to determine: 1) whether or not they use food labels when making food choices, 2) what components of food

labels draw most of their attention and why, 3) if they find labels confusing, and 4) if unhealthy food preoccupation is associated with their interpretation/use of food labels. Design: A survey will be administered to the public in the University Centre at Memorial University to collect data for this quantitative, descriptive study. Participants: A convenience sample of young adults, 19-30yrs. residing in eastern NL. Intervention/Instrument: A questionnaire will be developed specifically to address study objectives. Outcome measures: Participants' use of food labels will be described. Participants will be subdivided by apparent severity of preoccupation with healthy food. Use of food labels by those with a severe preoccupation will be compared to those with no apparent preoccupation. Results: Results will indicate if and how young adults use food labels. Findings will also reveal if some of the young adults investigated have a possible preoccupation with healthy food, and whether this is associated with food label usage. Conclusion: Data collection will not proceed until final ethics approval has been granted. Preliminary findings will be available to share in early September.

### **The Incidence of Drug-Induced Diabetes in Patients Taking Anti-Hypertensive and Lipid-Lowering Medications: An Overview of Systematic Reviews**

Erin Davis, Megan M Snow, Hilary Price, Terri Genge, Kristina Meyers, Kelly Hatch, John-Michael Gamble

Context: Over the last several years, concern has arisen regarding the association between several cardiovascular medications and subsequent diagnosis of diabetes. Objective: To conduct an overview of systematic reviews measuring the incidence of drug-induced diabetes in patients taking HMG-CoA reductase inhibitors (statins), beta-adrenergic blockers (BBs), calcium channel blockers (CCBs), thiazide diuretics, and niacin. Design: This review is an overview of systematic reviews. Using a comprehensive search strategy, electronic databases including the Cochrane Library, PubMed, EMBASE, Web of Science and International Pharmaceutical Abstracts were searched by two independent reviewers. Reference lists were hand searched. Systematic reviews and meta-analyses of randomized controlled trials that assessed the incidence of drug-induced diabetes in patients taking statins, thiazide diuretics, BBs, CCBs or niacin were eligible for inclusion. The methodological quality was assessed using the "assessment of multiple systematic reviews" (AMSTAR) checklist. Participants: N/A Intervention/Instrument: N/A Outcome measures: The primary outcome was the incidence of drug-induced diabetes. Secondary outcomes included major adverse cardiac events, fatal and non-fatal myocardial infarction and stroke, cardiovascular mortality, and all-cause mortality. Results: 19 systematic reviews met the pre-specified criteria for inclusion. Reviews included between 2 and 25 individual trials. The median (IQR) number of databases searched was 3 (1), and 16/19 reviews (84%) searched grey literature. The mean (SD) AMSTAR score was 4.8 (2.8) out of 11. 5/9 meta-analyses comparing statins vs. placebo or control, demonstrated a statistically significant increase in the risk of diabetes (Relative Risks [RR] ranged from 1.09-1.18). Pooled estimates for secondary outcomes demonstrated statistically significant reductions in cardiovascular outcomes for statins. Multiple pooled estimates for drug-induced diabetes were reported for BBs (12 estimates, RR ranged from 0.79-1.46), diuretics (12 estimates, RR ranged from 0.57-1.59), and 4/6 CCB (9 estimates, RR ranged from 0.75-1.27) reviews, as there were several active comparator groups. Conclusion: The majority of systematic reviews assessing cardiovascular medication induced diabetes were of low quality. Overall, statin meta-analyses suggest there is an increased risk of diabetes associated with statin use; however, the cardiovascular benefits remain statistically and clinically significant. BBs, CCBs and thiazides do not appear to consistently increase the risk of diabetes, albeit the results vary by comparator.

## **The Simple Lifestyle Indicator Questionnaire and Its Predictive Validity For Health-Related Quality of Life and Wellbeing.**

Jacqueline Fortier, Marshall Godwin

**Context:** The Simple Lifestyle Indicator Questionnaire (SLIQ) evaluates an individual's lifestyle based on their diet, exercise, alcohol consumption, smoking status, and perceived level of psychosocial stress. These lifestyle factors are an established source of risk for the development of certain chronic diseases, but the relationship between lifestyle and current health-related quality of life and well-being is an under-studied area of the literature. **Objective:** To describe the relationship between lifestyle habits as measured by the SLIQ and both well-being and health-related quality of life among adults living in St John's, Newfoundland & Labrador. **Design:** Survey **Participants:** Adults aged 18-65 who had not experienced a significant health crisis in the last year. **Intervention/Instrument:** Simple Lifestyle Indicator Questionnaire (SLIQ), EuroQol EQ-5D, Short Form(SF)-12 v. 2, Psychological General Well-being Index (PGWB). **Outcome measures:** Primary outcome measure is the correlation between SLIQ scores and the measures of health-related quality of life (SF-12 and EuroQol EQ-5D) and wellbeing (PGWB). Secondary outcomes include determining whether the three categories of SLIQ outcomes (unhealthy, intermediate, and healthy) represent distinct populations with respect to their health-related quality of life and well-being. We will also examine the correlation between component scores on the SLIQ (diet, exercise, alcohol consumption, smoking status, and stress) and health-related quality of life and well-being. Finally, we will examine the effects of demographic factors on the correlation between SLIQ scores and health-related quality of life and well-being. **Results:** Data analysis is being conducted at this time and final results will be available at the time of the conference. We anticipate some correlation between the SLIQ score and measures of both well-being and health-related quality of life. **Conclusion:** This research should provide insight into the relationship between lifestyle risk factors for chronic disease and well-being and quality of life.

## **What are Psychiatry Residents' Attitudes towards Psychotherapy at Memorial University?**

Grigore Radu, Gregory E Harris, PhD, Faculty of Education, Weldon Bonnell, MD, Msc, Faculty of Medicine, Michele Neary, PhD, University Counseling Centre, Krystal Bursey, BSc, Faculty of Science

**Context:** : Psychotherapy education is one of the essential components of specialist training in psychiatry according to the Royal College of Physicians of Canada. How psychiatry residents perceive psychotherapy has major implications for how trainees will learn about psychotherapy during training, how they will utilize it in their future practice, and how they will integrate it into their professional identity. This study focuses on data collected at Memorial University focused on psychiatry residents' views of psychotherapy. Implications for teaching, future research, and practice are discussed. **Objective:** : To evaluate psychiatry residents' attitudes towards current psychotherapy education and practice, towards being a psychotherapist and future plans for psychotherapy practice. **Design:** : The study involved the distribution of a questionnaire to psychiatry residents at Memorial University. The survey consisted of 20 Likert-scaled items which assessed resident's attitudes towards being a psychotherapist and their future study and practice plans for psychotherapy. All data was analyzed using SPSS version 22.0 and descriptive statistics were used to gauge resident's attitudes. **Participants:** : Psychiatry residents at Memorial University. Residency is a five year postgraduate training program in general adult psychiatry. Surveys were completed by 18 out of 25 residents in the program. **Intervention/Instrument:** The survey consisted of 20 Likert-scaled items which assessed resident's attitudes towards being a psychotherapist and their future study and practice plans for psychotherapy. Each item was rated from 1 = "not at all" to 5 = "very much". Three demographic items asked participants about their current level of training in psychiatry, previous training in psychotherapy or counselling and if they are Canadian (CMGs) or International (IMGs) medical graduates. **Outcome measures:** Core outcome measures included areas such as: residents' perceptions towards current psychotherapy education and practice, towards being a psychotherapist and

future plans for psychotherapy practice. Results: : The overall response rate was 72%. Of the respondents, 38.9% moderately agreed that being a psychotherapist is part of their identity as a psychiatry resident and 33.3% agreed that conducting psychotherapy is quite rewarding. Forty-four percent strongly agreed that psychotherapy skills are necessary to becoming a competent psychiatrist. When separated by undergraduate medical education, CMGs scored lower on how much being a psychotherapist is part of their identity as a psychiatry resident. Fifty percent of them reported only moderate agreement whereas IMGs considered psychotherapy ability important to their identity by agreeing a lot (30.0%) and very much (20.0%). IMGs also scored higher on whether psychotherapy skills are necessary to being a competent psychiatrist, with 60% agreeing very much. Conclusion: Most of the participating psychiatry residents at Memorial University agree that psychotherapy skills are necessary to becoming a competent psychiatrist with almost half of them strongly agreeing. The results of this study seem to point towards a difference between CMGs and IMGs with respect to their attitudes towards psychotherapy's role in psychiatry.

### **What Primary Healthcare Professionals Can Do to Better Support Men and Women Post-Pregnancy Loss**

Crystal Northcott, Dr. Cynthia Murray, Dr. Lan Gien

Context: There is limited data available comparing grief and coping between men and women post-pregnancy loss. Since society is changing with increased technology and males becoming more involved in childcare, grief responses for men following a pregnancy loss may have changed and the research in this area needs to be updated. Objective: To determine if there are differences between men's and women's grief intensity and coping strategies post-pregnancy loss. Also, the potential influence of time since pregnancy loss, age, parenthood status, number of pregnancy losses, gestational age, and fetal ultrasound viewing status on the intensity of grief for men and women were explored. Design: A cross-sectional, retrospective, correlational study Participants: Participants were 25 males and 41 females aged 19 years or older who experienced a pregnancy loss at any length of gestation at any time throughout their lives. Intervention/Instrument: Three self-administered questionnaires were completed: a Socio-demographic questionnaire, The Coping Scale for Adults (CSA, specific short form), and the Perinatal Grief Scale (PGA, short version). Outcome measures: Socio-demographic variables were analyzed using descriptive statistics to determine if there were differences between men and women. To determine if there were any differences between men's and women's coping strategies and levels of grief, the Mann-Whitney U test, Pearson's Product-Moment Correlation, Point Biserial Correlation, and Spearman's rho correlation coefficient were used. Results: Data analysis found that females were more likely to seek support from others, while males were more likely to use humor as a coping strategy. No statistically significant differences were found between gender and grief intensity. However time since the most recent pregnancy loss influenced both men and women's grief intensity and ultrasound-viewing status influenced men's grief intensity. Conclusion: The current study found that there were no significant differences between grief intensity and gender post-pregnancy loss. Differences appear to exist in how males and females cope with their grief. This knowledge is important because individualized plans of care based on gender may be needed to assist them through the grieving process.







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**Primary Healthcare Research Unit**

4<sup>th</sup> Floor, Janeway Hostel  
Health Sciences Centre  
300 Prince Philip Dr  
St. John's NL A1B 3V6  
[phru@mun.ca](mailto:phru@mun.ca)  
[www.med.mun.ca/phru](http://www.med.mun.ca/phru)