



# NORTHERN HEALTH RESEARCH CONFERENCE 2018



**September 21 - 22, 2018**  
**Kenora, Ontario**



Northern Ontario  
School of Medicine  
École de médecine  
du Nord de l'Ontario  
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Please be sure to complete the  
Northern Health Research Conference evaluation online at:  
<http://bit.ly/NHRC2018>

This link also enables you to obtain and print your  
certificate of participation at NHRC 2018.

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The Northern Ontario School of Medicine wishes to acknowledge that the entirety of the School's wider campus of Northern Ontario is on the traditional lands of the First Nations Peoples and Métis Peoples who resided alongside. The School respectfully acknowledges that the medical school building at Laurentian University is located in the Robinson-Huron Treaty territory and at Lakehead University in the Robinson-Superior Treaty territory.



# Welcome Message from NOSM



## Research focused on a healthier North.

Welcome to the Northern Ontario School of Medicine's (NOSM) 13th annual Northern Health Research Conference (NHRC), which we are pleased to be hosting in Kenora, Ontario.

For years, health research in Canada took place primarily in large cities. This meant that there were many health questions relevant to the health of the peoples and communities of Northern Ontario that were going unanswered—including chronic disease, mental health, and how work in the mining or forestry industries might affect one's health.

A common belief amongst the public is that research is done by investigators in a research laboratory. The Northern Health Research Conference demonstrates that research is done by a wide variety of individuals—medical anthropologists, sociologists, biologists, immunologists, physicians and more—who conduct leading-edge health research in communities, hospitals, health clinics, labs and administrative offices across the region.

Hosting the Northern Health Research Conference in Kenora aids us in extending this network of individuals who are all working towards a common goal and contributing to NOSM's vision of *Innovative education and research for a healthier North*.

To everyone who dedicated many hours to ensure that each of us enjoys an exceptional Northern Health Research Conference over the next two days, please accept our sincere thanks.

Whether you are joining us for the first or 13th time, welcome and please enjoy the Northern Health Research Conference!



**Dr. Roger Strasser AM**  
Professor of Rural Health  
NOSM Dean and CEO

**Dr. Penny Moody-Corbett**  
NOSM Senior Associate Dean  
Associate Dean, Research



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# A Message from the Mayor



## **Welcome to the City of Kenora.**

Welcome friends and neighbours to the 13th Annual Northern Health Research Conference (NHRC).

We welcome you to the most beautiful part of the province and the gateway to the great northwest from western Canada and United States. We know you will enjoy your time here, and want to return.

Kenora has a rich and interesting history. In fact in 1883 the Manitoba Ontario border almost went through this very hotel! Being involved with NOMA as President around the year 2000 when the Northern Ontario School of Medicine was created and the lobbying efforts to maintain the two campuses in Thunder Bay and Sudbury, was due to a lot of great leaders in Northwestern Ontario. The one being the most involved, Ron Nelson, our pit bull that would not give up until the government agreed to both campuses. The success of NOSM today is remarkable and we are thankful for what it brings to our communities.

The NHRC demonstrates NOSM's commitment to health care and education to the people of Northern Ontario and beyond, and continues to explore research activities within Northern Ontario arising from community-based activities. We are fortunate to host such an amazing group of delegates who have a strong passion for our health care.

Please enjoy your stay, have a safe journey home and come back to visit us again soon!

Sincerely,

**David S. Canfield**  
Mayor  
City of Kenora

# A Message from MP Kenora



**On behalf of all Northerners, I would like to welcome attendees of the 2018 Northern Health Research Conference to the City of Kenora.**

NOSM has been making great strides in our region by working to improve healthcare services and education. We know that Northwestern Ontario presents many unique opportunities for partnerships between healthcare professionals, governments, and Indigenous peoples, to work together to deliver better service outcomes. By sharing ideas, communicating best practices, and joining together in research, we can collaboratively work together to enhance the quality of healthcare delivery to Northerners.

I would like to thank NOSM and its partners for all of their hard work. Moving forward, I know they will continue their efforts to advance healthcare and improve the lives of people in Northern Ontario.

During your stay here, I hope you have some time to explore and enjoy the hospitality of the City of Kenora. Walk the waterfront, visit Husky the Muskie, and browse our many shops and storefronts.

I wish you a successful, productive conference, and I look forward to the future work of NOSM.

Sincerely,

**Hon. Bob Nault, P.C., M.P.**  
Member of Parliament  
Kenora

# A Message from MPP Kenora-Rainy River



**Our government respects our doctors, nurses and other health practitioners by working hand-in-hand with them to ensure we have a fair system that puts patients first.**

Addressing health challenges and improving the quality of life for northerners is crucial in creating a vibrant and prosperous Ontario.

Since the Northern Ontario School of Medicine was established, it has focused on bettering the health of the people and communities in Northern Ontario. NOSM's campus has truly been the vast region of Northern Ontario. It has worked with countless partners to train medical professionals and to design service models that meet the diverse needs of our communities through traditional and innovative ideas and technology.

I am happy to welcome attendees of NOSM's 2018 Northern Health Research Conference to the City of Kenora. NHRC provides a vital forum for community-based researchers, students and residents to exchange ideas, advice and best practices. It also creates an opportunity to network and collaborate, building upon NOSM's vital work.

Have a great and productive 2018 NHRC.

**Greg Rickford**

Member of Provincial Parliament

Kenora – Rainy River

Minister of Energy, Northern Development and Mines

Minister of Indigenous Affairs

# Keynote Speaker



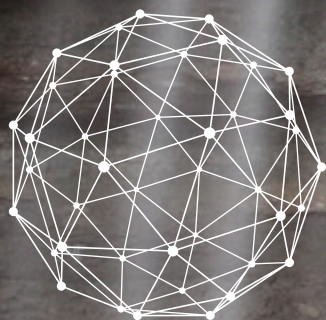
## **Dr. Catherine L. Cook, MD, MSc, CCFP, FCFP**

**Dr. Catherine Cook** is an Indigenous (Métis) woman and grew up in Manitoba's northern Interlake. She received her undergraduate and postgraduate medical education at the University of Manitoba (1987, 1989, 2003). Dr. Cook practiced as a family physician in remote northern nursing stations for several years before focusing on public health practice, and more recently health administration and management.

Dr. Cook plays an important role in shaping the nature and scope of Indigenous health care and research in Manitoba. She has a joint role with the University of Manitoba as the Vice Dean, Indigenous Health, Rady Faculty of Health Sciences and Head of Ongomiizwin - Indigenous Institute of Health and Healing and as the provincial lead, Indigenous Health, Shared Health. Shared Health is a new provincial health organization that envisions a province-wide health system that is integrated, coordinated and able to make and sustain significant improvements—reduced wait times, increased access to health services and consistent and reliable standards of care—for all Manitobans. Prior to joining Shared Health, she served as the Vice-President of Population and Indigenous Health with the Winnipeg Regional Health Authority.

Dr. Cook has held numerous positions in health and academic administration. She has been actively involved in teaching, research and mentorship of undergraduate and postgraduate students. Dr. Cook throughout her career has participated and continues to serve on several national boards and committees.





# NORTHERN HEALTH RESEARCH CONFERENCE 2019

## Save the Date

Join us for the 14<sup>th</sup> annual Northern Health Research Conference

October 2019\*

Little Current, Manitoulin Island, Ontario

*\*Date subject to change.*



Northern Ontario  
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# Revised Conference Agenda

## Oral Presentation Interactivity:

Keynote Speakers: Talk 45 minutes / Interactivity 15 minutes

Oral Speakers: Talk 10 minutes / Interactivity 5 minutes

## Thursday, September 20, 2018

6:00 p.m. "Meet and Greet" Fish Fry

Whitecap Pavilion

## Friday, September 21, 2018

8:00 a.m. Registration / Poster Setup / Open Poster Viewing – Clarion Inn and Conference Centre

Cascade Room

9:00 a.m. Welcome and Opening Remarks from Dignitaries and Special Guests

Cascade Room

9:20 a.m. **Guest Speaker: Dr. Roger Strasser, NOSM Dean & CEO**  
Reflections on NHRC: 2006 to present

Cascade Room

9:45 a.m. Remarks from Vice Dean, Academic & Associate Dean, Research | Running Challenge

Cascade Room

10:00 a.m. Nutrition Break / Poster Viewing (Group #1)

Oakwood Room

10:45 a.m. **Sharen Madden**  
High frequency emergency department use in a rural NW Ontario hospital

Cascade Room

11:00 a.m. **Vicky Nguyen**  
Establishing Equity in Access to Physician Services for Mental Health in Northern Ontario

11:15 a.m. **Grace Kyoan-Achan**  
Our People, Our Health: Envisioning to Improve Primary Healthcare in Manitoba First Nation communities

11:30 a.m. **Stephanie Sinclair**  
Comparing Indicators of PHC in the First Nation and Rural and Remote Communities in Manitoba

11:45 a.m. **Emma Goettke**  
It's all interconnected. . . like a spider web: A qualitative study of meanings of food and diet in a Cree community

12:00 p.m. **Emmanuel Abara**  
Learner-Faculty Feedback and Reflective Practice in Rural Urology Clinic

12:15 p.m. Lunch / Open Poster Viewing (Groups #1 and #2)

Cascade Room

1:30 p.m. **Keynote Speaker: Dr. Catherine Cook, Vice-Dean Indigenous, Rady Faculty of Health Sciences, University of Manitoba and Provincial Lead, Indigenous Health, Shared Health Manitoba**  
Indigenous Health Research – A Building Block for Equity for Indigenous People

Cascade Room

2:30 p.m. Nutrition Break / Poster Viewing (Group #2)

Oakwood Room

3:15 p.m. **Lorilee McGregor**  
The Development of Biological Sampling Guidelines on Mnidoo Mnising

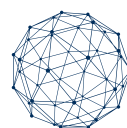
Cascade Room

3:30 p.m. **Shelly Hosman**  
Parents' Experiences and Nurses' Perceptions of Decision Making about Childhood Immunization

3:45 p.m. **Len Kelly**  
New Obesity Treatment: fasting, exercise, low carb diet: The NOT\_FED Study

Session Chair: Lee Rysdale

Session Chair: Melissa Reed



## Friday, September 21, 2018

5:15 p.m. Dinner / Lake of the Woods Cruise

M.S. Kenora

## Saturday, September 22, 2018

8:30 a.m. Registration / Open Poster Viewing

Cascade Room

9:00 a.m. **Lee Rysdale**  
Culinary Medicine Labs: A Northern Ontario School of Medicine (NOSM) Pilot

Cascade Room

9:15 a.m. **Carmen Petrick**  
Beliefs and Perspectives of Patients and Providers on Hospital-Based Water Births

9:30 a.m. **Manal Alzghoul and Helle Moeller**  
The gap in maternal mental health in prenatal education: NorthWestern Ontario women's perspectives

9:45 a.m. **Lynn Smith**  
Implementation of Pediatric Simulation for Emergency Department and Pediatric nurses in a Northern Ontario Regional Hospital

10:00 a.m. Nutrition Break / Poster Viewing (Groups #1 and #2)

Oakwood Room

10:45 a.m. **Dani Adduono**  
Menstrual Symptoms are More Severe than Premenstrual Symptoms: Age, Height, and Anxiety History are Associated with Women's Symptom Patterns

Cascade Room

11:00 a.m. **Michael Conlon**  
Comprehensive hospice palliative care delivery through an ambulatory symptom management program (SMP) and impact on end-of-life care in Sudbury, Ontario 2012-2015: A propensity score matched observational study using administrative data

11:15 a.m. **Melinda Fowler**  
Ongomiizwin Education: The pursuit of a health career with culturally relevant Indigenous Student Support

11:30 a.m. **Jai Mashru**  
Diabetic A1C testing and increasing diabetic management in rural Northwestern Ontario with incentives

11:45 a.m. **Melissa Reed**  
The metabolic syndrome and its components as prognostic factors in metastatic colorectal cancer

12:00 p.m. Lunch and Closing

Cascade Room

Session Chair: Vicky Nguyen

Session Chair: Lynn Smith

# Poster Agenda

## Group 1

1	<b>Emmanuel Abara</b> Global Health in Surgery: A Platform for Learner-Faculty Growth: The West African Experience
3	<b>Susan Boyko</b> Using Arts-Based Research Methods to Evaluate Transformational Learning among Adults with Cancer
5	<b>John Dabous</b> Trends in Preventable Hospitalizations in Northern Ontario
7	<b>Patrick Donio</b> Comparison of Readmission and Death Among Cardiac Patients in Northern vs. Southern Ontario
9	<b>Melinda Fowler</b> Qanuinnigitsiarutiksait (tools for the well-being/safety of Inuit/people): Developing Population-Based Health and Well-Being Strategies for Inuit in Manitoba
11	<b>Roslyn Graham</b> Exploring Simulation for Promoting Cultural Competence in an Academic Health Sciences Center: A Preliminary Study
13	<b>Jacqueline Harvey</b> Exploring Undergraduate Medical Students' Perceptions and Engagement with Social Accountability: A Qualitative Study
15	<b>Jessica Kent-Rice</b> Predictors of a medical condition among patients presenting to the Emergency Department after amphetamine use
17	<b>Eyad Kinkar</b> Identification of cell surface receptor of STb in the intestinal cell line STC-1
19	<b>Grace Kyoan-Achan</b> Where the dice stops: understanding and confronting racism and discrimination in community-based healthcare in Manitoba First Nations communities
21	<b>Anne Leversha</b> Rural prescribing teaching goes mainstream for Monash University medical students





## Group 2

2	<b>Peggy Meigs</b> Health related quality of life in Head and Neck Cancer patients receiving radiation therapy
4	<b>Ocean Nenadov</b> Chronic Pain in High Frequency Users of the Thunder Bay Regional Health Sciences Centre Emergency Department
6	<b>Wanda Phillips-Beck</b> Working toward balancing the power in Research: Collaborating with University and Indigenous Communities in Manitoba. The experiences in the program of research entitled "Innovation in Community-based Primary Health Care (CBPHC) Supporting Transformation in the Health of First Nation and rural/remote communities in Manitoba (iPHIT)" program of research.
8	<b>Chad Prevost</b> A Retrospective Comparative Case-Series of Infective Endocarditis in Northern Ontario and Southern Ontario
10	<b>Melissa Reed</b> Examining how patients perceive and interact with their web portal-based laboratory results in a community-based Family Health Team
12	<b>Melissa Reed</b> Diabetes, obesity, and the metabolic syndrome as prognostic factors in stages I to III colorectal cancer patients
14	<b>Lee Rysdale</b> Nutrition and Autism Spectrum Disorder: A needs assessment and environmental scan to inform nutrition curriculum and training for non-medical diagnostic and therapeutic service providers in Northern Ontario
16	<b>David Schmitz</b> Measuring the Commitment of Medical Schools to Rural Primary Care (in the United States)
18	<b>Ankur Shahi</b> Cannabis Therapy Knowledge Study: Toward Establishing a Pedagogical Tool
20	<b>Stephanie Sinclair</b> First Nation Models of Wellbeing: Validating the First Nation Mental Health Framework





## Accreditation

This one-credit-per-hour Group Learning program meets the certification criteria of the College of Family Physicians of Canada and has been certified by the Continuing Education and Professional Development Office at the Northern Ontario School of Medicine for up to 6 Mainpro+ credit(s).

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by the Continuing Education and Professional Development Office at the Northern Ontario School of Medicine. You may claim a maximum of 6 hour(s) (credits are automatically calculated).

# Acknowledged with Thanks

## NHRC Planning Committee

Kimberly Larkin  
Dr. David MacLean  
Dr. Adam Moir  
Dr. Penny Moody-Corbett  
Lyne Morvan  
Dr. Sheldon Tobe

## Scientific Review Committee

Dr. David MacLean  
Dr. Penny Moody-Corbett  
Dr. Sheldon Tobe

## Lake of the Woods Health Sciences Campus LEG

Dr. Rhonda Diamond  
Dr. Brad Kyle  
Geordie McEwen

## Special Thanks

Special thanks to Aboriginal Elder, Phyllis Shaugabay for providing the opening and closing prayers.

## Northern Ontario School of Medicine

Julie Colquhoun  
Bria Corradi  
Patty Fink  
Kimberley Larkin  
Jason Lind  
Dr. David MacLean  
Dr. Penny Moody-Corbett  
Lyne Morvan  
Hillary Sparkes  
Dr. Sheldon Tobe



[nosm.ca](http://nosm.ca)

**The Northern Ontario School of Medicine would like to thank the Lake of the Woods Health Sciences Campus LEG for their support.**

# Oral Abstracts

**The research work in the following abstracts  
are all original and innovative.**

The oral abstracts are in presentation order.

*Abstracts have been published as submitted.*

# High frequency emergency department use in a rural NW Ontario hospital

## PRESENTING AUTHOR:

Sharen Madden (2)

## AUTHOR(S):

Len Kelly (1), Sharen Madden (2), Terry O'Driscoll (3), Cai-lei Matsumoto (4)

## AFFILIATIONS:

(1) Anishnaabe Bimaadiziwin Research Program, (2) Northern Ontario School of Medicine, Sioux Lookout, (3) Sioux Lookout Meno Ya Win Health Centre & NOSM, (4) Sioux Lookout First Nations Health Authority.

## ABSTRACT:

The objective of this study was to identify the definition and the scope of high frequency use of the emergency department (ED) in a rural NW Ontario hospital, including the five year trend in total emergency department (ED) visits and diagnoses and disposition of patients.

High frequency (HF) use of the ED is a commonly identified hospital resource issue in large urban settings. There is little understanding of the scope of the problem in a rural setting.

## METHODOLOGY

We examined anonymous aggregate data on ED visits at the Sioux Lookout Meno Ya Win Health Centre (SLMHC) for a 5 year period (2010-2014) using a definition of  $\geq 6$  annual ED visits.

## RESULTS

We identified a definition of  $\geq 6$  annual ED visits as a reasonable definition of 'high frequency' in a rural hospital. This identified 7.1% of the ED visitors as HF and they constituted 34.1% of the ED workload and accounted for 24.3% of admissions.

HF ED users had similar clinical presentations as regular ED users, but required fewer admissions per ED visit (5.3% vs 7.6%,  $p < 0.001$ ). HF users had more low acuity presentations. Interestingly, HF users accessed concurrent primary care services twice as often as the general ED population.

## CONCLUSION

High frequency ED use is a significant issue for rural hospitals. 'Overuse' of this rural ED is not associated with limited utilization of primary care services. Aside from accepting that "they will always be with us", more research, particularly qualitative, is needed to understand why some patients frequently visit a rural ED.



# Establishing Equity in Access to Physician Services for Mental Health in Northern Ontario

## PRESENTING AUTHOR:

Vicky P.K.H. Nguyen

## AUTHOR(S):

Eibl, J(1, 2), Anderson, K(1), Morin, K(2), Franklyn, A(2), LaBelle, B(1) and Marsh, D(1)

## AFFILIATIONS:

(1) Northern Ontario School of Medicine

(2) Laurentian University

## ABSTRACT:

Ontario's publicly funded health care system has the policy goal of universal and equitable access to efficient and high-quality care for all Ontarians. Equitable access is currently not the norm for large groups of patients residing in Northern Ontario.

Innovative solutions to access problems include telemedicine and various models of mental health care. Optimizing connectivity and innovative solutions to facilitate care by psychiatrists willing to provide complex mental health care to patients willing to receive care by telepsychiatry or in collaboration with their general practitioner (as in collaborative or shared care), requires a firm grasp of current trends in mental health service provision for Ontarians.

Large sets of Institute for Clinical Evaluative Sciences (ICES) administrative data were used to study trends in access for a sub-population of patients (including those with opioid use disorder) in Northern Ontario, and compared to their Southern Ontario counterparts. Surprising results suggest a need for a more sophisticated collaborative approach to mental health care provision. Closing wide gaps in access, reducing service redundancy, and optimizing prudent use of limited resources are key challenges in creating equitable access.

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# Algorithms to Identify Febrile Patients at Risk of Life-threatening Infections in Low Resource Settings

## PRESENTING AUTHOR:

Melissa Richard-Greenblatt

## AUTHOR(S):

**Melissa Richard-Greenblatt**<sup>1</sup>, Aleksandra Leligdowicz<sup>1</sup>, Andrea L. Conroy<sup>2</sup>, Noémie Boillat-Blanco<sup>3</sup>, Michael Hawkes<sup>4</sup>, Valérie D'Acremont<sup>5</sup>, Kathleen Zhong<sup>1</sup>, Kevin C. Kain<sup>1</sup>

## AFFILIATIONS:

<sup>1</sup>University of Toronto/University Health Network, Toronto, ON, Canada

<sup>2</sup>University of Indiana, Indianapolis, IN, United States

<sup>3</sup>Lausanne University Hospital, Lausanne, Switzerland

<sup>4</sup>University of Alberta, Edmonton, AB, Canada

<sup>5</sup>Swiss Tropical and Public Health Institute, Basel, Switzerland

## ABSTRACT:

Fever is one of the most common reasons patients seek medical care; however, most infections are self-limited and in the absence of critical illness can be managed conservatively. The inability to identify individuals with acute febrile syndromes at risk of death is a barrier to effective triage and management of severe infections, especially in resource limited settings. As endothelial and immune activation contribute to the pathogenesis of life-threatening infections, we hypothesized that measuring circulating mediators of these pathways would identify febrile individuals with impending life-threatening infections. To test this hypothesis we assessed levels of these mediators of these pathways at clinical presentation to outpatient departments in two separate cohorts: (i) febrile Ugandan children (n=2,084, 99 deaths), and (ii) febrile Tanzanian adults (n=507, 32 deaths). Lead single endothelial and immune activation biomarkers predicted mortality and were superior to CRP and PCT ( $P < 0.0001$ ). We show sTREM1 to be the top single biomarker for predicting "all-cause" febrile mortality in Ugandan children (AUROC 0.88, 95% CI 0.84-0.92, negative predictive value [NPV] 99.0%) and Tanzanian adults (AUROC 0.87, 95% CI, NPV 97.9%). sTREM1 displayed non-inferior performance to established clinical disease severity scores (e.g. LODS: AUROC 0.90 95% CI 0.87-0.93, NPV 99.0%; qSOFA: 0.79, 95% CI 0.72-0.87, NPV 97.0%). Combinatorial models adding sTREM1 to either LODS or qSOFA significantly improved their predictive accuracy in both the pediatric (AUROC 0.93, 95% CI 0.90-0.96, NPV 99.5%) and adult (AUROC 0.91, 95% CI 0.88-0.94, NPV 99.7%) cohorts. These data indicate that measuring sTREM1 at clinical presentation, especially when combined with simple clinical severity scores, can reliably identify febrile individuals at risk of death. Implementation of biomarker-based algorithms using point-of-care tests could inform evidence-based decision-making for referral/medivac from rural settings in Northern Canada, and ultimately improve patient outcomes, decompress emergency services and reduce overall health-care costs.

# Our People, Our Health: Envisioning to Improve Primary Healthcare in Manitoba First Nation communities

## PRESENTING AUTHOR:

Grace Kyoon-Achan

## AUTHOR(S):

Wanda Phillips-Beck (MSc)<sup>4</sup>, Stephanie Sinclair (MA)<sup>4</sup>, Kathi Avery Kinew (MSW, PhD)<sup>4</sup>, Josée Lavoie (PhD)<sup>1..3</sup>, Alan Katz (MBChB, CCFP)<sup>1.2.5</sup>

## AFFILIATIONS:

1- Department of Community Health Science, University of Manitoba

2- Manitoba Centre for Health Policy, University of Manitoba

3- Ongomiizwin-Research, University of Manitoba

4- First Nations Health and Social Secretariat of Manitoba

5- Department of Family Medicine, University of Manitoba

## ABSTRACT:

**Introduction:** Recognizing the right of self-determination of indigenous peoples is essential to improve the state of health of First Nations, Inuit and Metis peoples in Canada. Understanding communities' priorities and community-based health agendas is critical for primary healthcare transformation. One purpose of this study was to understand existing strengths in First Nations communities. We asked participants to envision optimal healthcare systems that would be innovative and transformative.

**Methods:** Qualitative study using community-based participatory approach to engage 8 First Nations communities. Questions were co-developed by university-based researchers, *Nanaandawewiwgamig* and community partners. 299 interviews were conducted by community-based local research assistants. Data was collaboratively analyzed through process involving community partners.

**Results:** Key themes likely to transform community-based primary healthcare include: primary prevention focused on health determinants affecting various communities (housing, water, employment, education), an integrated healthcare system providing access to both western and First Nation traditional healthcare, expanded services to meet specific needs as identified by communities, infrastructure improvement, continuity of care, investing in community-based human resources, investing in traditional health knowledge and land based activities, support for ongoing culturally based quality assessments and improvement, increased mental health services including appropriate addictions counseling. Specific roles were identified at four levels; individual, community, local leadership and government.

**Conclusion:** Optimal community-based primary healthcare would place people and community at the center of care as leaders; strategies would be culturally respectful, responsive, geographically sensitive, and outcomes-oriented. This could be achieved by acknowledging and supporting local health priorities rather than imposing contextually irrelevant solutions.

# Comparing Indicators of PHC in First Nation and Rural and Remote Communities in Manitoba

## PRESENTING AUTHORS:

Stephanie Sinclair

## AUTHOR(S):

Stephanie Sinclair (MA); Wanda Phillips (MSc)<sup>1,4</sup>, Grace Kyoon-Achan (PhD)<sup>1,3,4</sup> Kathi Avery Kinev (MSW, PhD)<sup>4</sup>, Josée Lavoie (PhD)<sup>1,3</sup>, Alan Katz (MBChB, CCFP)<sup>1,2,5</sup>

## AFFILIATIONS:

- 1- Department of Community Health Science, University of Manitoba;
- 2- Manitoba Centre for Health Policy, University of Manitoba
- 3- Manitoba First Nations Centre for Aboriginal Health Research, University of Manitoba
- 4- First Nations Health and Social Secretariat of Manitoba
- 5- Department of Family Medicine, University of Manitoba

## ABSTRACT:

**Context:** The Canadian Institute for Health Research supported a collaborative process to develop a list of agreed upon Primary Health Care (PHC) indicators between 12 PHC research teams in Canada, to contribute to the knowledge on measurement and management of PHC. As part of the 5-year grant, the Manitoba IPHIT project adapted as appropriate and collected many of the agreed upon PHC indicators in First Nation (FN) and Rural and Remote communities.

**Objective:** This presentation will describe the process by which indicators of PHC for patients were adapted and collected in FN and Rural and Remote communities in Manitoba.

**Approach:** Rural and Remote communities were matched with FN communities based on population, distance from hospital and hospitalization trends based on administrative health data from the Manitoba Centre for Health Policy. We administered surveys to in 12 FN (nursing stations and health centres) and 7 Rural and Remote primary health care facilities in Manitoba.

**Results:** Community members over the age of 18, who received care from healthcare facilities in FN and rural and remote communities, were selected to participate. A total of 428 patient surveys are included in the data set. There are key differences on some of the dimensions of PHC, particularly in access to care: 23% of respondents in FN communities indicating that services were not available when required while 11% in R&R communities. Surprisingly, 15% FN reported that services were not available in their area compared to 37% in R&R communities.

**Conclusions:** Commonly used primary care survey instruments require adaptation for use in rural/remote communities. There are significant differences between FN communities and off reserve rural/remote communities in terms of both service provision and the perceptions about those services. These can be linked to the broader discourse on accountability of health care services to all sectors of the population.



# **“It’s all interconnected...like a spider web”: A qualitative study of meanings of food and diet in a Cree community**

## **PRESENTING AUTHOR:**

Emma Goettke (1)

## **AUTHOR(S):**

Goettke, E (1), Reynolds, J (2)

## **AFFILIATIONS:**

(1) Department of Primary Care & Public Health Sciences, King’s College London, UK,

(2) Department of Health Services Research and Policy, London School of Hygiene & Tropical Medicine, London, UK

## **ABSTRACT:**

Rising rates of type 2 diabetes are of increasing concern internationally with Indigenous populations disproportionately affected by this trend. Contributing diet and lifestyle factors are exacerbated by experiences of marginalization faced by many Indigenous populations – and Canada is no exception. There remains a lack of understanding of cultural meanings attached to health and wellbeing, allied by a continued need to adopt a community-level approach in research on Indigenous health and underlying influences.

Using qualitative methodologies, this study focused on local experiences and the interconnection of food, diet, and health in a community in Eeyou Istchee. By interviewing key informants, the aim was to obtain to a greater understanding of attitudes and meanings around food and healthy eating in the Cree community of Nemaska.

The findings indicate that there are two different versions of ‘healthy,’ one relating to traditional food and preparation methods, and the other, seemingly an imported concept of ‘healthy,’ relating to what people learn from health workers with respect to illness and diagnosed conditions. The latter links with ‘southern’ modes of accessing and preparing food, demonstrating local capacity to adapt to the rapid changes in lifestyle and environment being experienced. New connections, associating non-native ways with traditional practices, are being formed where old ones, traditional ways of living on the land, have been severed. The “Cree body” plays a crucial part in comprehending change and disconnection and reconnection.

The dichotomous conceptualization of healthy, narratives of how people identify with change, emphasis on interconnection, and the role of the body expand the current understanding of context of healthy eating in Eeyou Istchee. Local accounts are useful for informing relevant health promotion interventions. Health research must continue to consider local understandings of health to counteract effects of colonization, marginalization, rapid westernization of Indigenous lifestyle, and changes in environment and health.

# Learner-Faculty Feedback and Reflective Practice in a Rural Urology Clinic

## PRESENTING AUTHOR:

Emmanuel Abara

## AUTHOR(S):

Abara E (1,2,3)

## AFFILIATIONS:

Richmond Hill Urology Practice & Prostate Institute (1); Sensenbrenner Hospital, Kapuskasing (2); Northern Ontario School of Medicine, Sudbury/Thunder Bay Ontario (3)

## ABSTRACT:

**Background:** Learners from several health institutions, spend sometime in our rural urology clinic to gain experience. Over the years, we have adopted various methods of feedback to enrich our teaching and clinical practice. We report one such method that seem to resonate with the learners.

**Materials and Methods:** Our learners are residents and medical students from NOSM and other Medical and Nursing Schools who elect to spend some blocks of time to gain some urological knowledge. On arrival, the learner meets the Faculty and Unit staff and discusses the learning contract or plan, setting some simple achievable goals. The learner works alongside with faculty. There is End of Day Debriefing. Learner selects 2 or 3 topics/cases for in-depth review and literature search. Learner reflects on the day's activities, workplace and professionalism, produces a report after critical analysis and literature review. This is submitted electronically to faculty who reviews the work and responds with a feedback, sometimes resulting in multiple loops of feedback

**Results:** Learners were very receptive with close to 90% compliance rate. Knowledge gained led to change in practice, attitude and skill acquisition. Reflective practice, critical analysis, development of professionalism and publication of case reports were good harvests from this feedback process.

**Discussion and Conclusion:** Learner-Faculty Feedback is a healthy strategy for professional health care education. Benefits to learner and faculty result in growth and sustainable workplace relations. Respectful, honest, genuine feedback generates confidence and trust. Negative feedback taken seriously can result in lasting benefit.

# The Development of Biological Sampling Guidelines on Mnidoo Mnising

## PRESENTING AUTHOR:

Lorrilee McGregor, PhD

## AUTHOR(S):

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## AFFILIATIONS:

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## ABSTRACT:

The Manitoulin Anishinaabek Research Review Committee is a community-based research ethics committee that provides ethics reviews on research projects that involve seven First Nation communities. Since 2005, the Manitoulin Anishinaabek Research Review Committee has reviewed over 60 research applications using the *Guidelines for Aboriginal Research* (GEAR) that were developed on Mnidoo Mnising. When the GEAR was being developed, biological sampling was considered too contentious and, thus, were not addressed in the guidelines. Since that time the committee has been approached by researchers who indicated interest in conducting research involving biological samples. With funding from the Panel on Research Ethics and with the support of Noojmowin Teg Health Centre, the committee embarked on a community engagement process to inform the development of biological sampling guidelines. Two community engagement sessions were held in January and February 2016 resulting in a report that documented issues and considerations. A sub-committee met in the summer of 2017 to develop draft biological sampling guidelines based on the community engagement sessions. In the fall of 2017, the committee asked a group of Elders to review the draft guidelines resulting in further refinement of the guidelines. This presentation will describe the development of the GEAR document and the MARRC ethics review process. Next we will describe how the biological sampling guidelines were developed. During the presentation we will discuss why the GEAR is unique and how this has impacted the research being done on Mnidoo Mnising. The importance of Anishinaabek research ethics, values and processes will be emphasized.

# Parents' Experiences and Nurses' Perceptions of Decision Making about Childhood Immunization

## PRESENTING AUTHOR:

Shelly Hosman (1)

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## ABSTRACT:

The uptake of immunization against infectious childhood diseases such as mumps, measles, rubella, diphtheria, tetanus, and pertussis has resulted in positive global health outcomes. The estimated vaccine coverage for these diseases falls below World Health Organization targets. The literature demonstrated that parents have an active role in making decisions about their children's immunization status informed by contextual, individual, and vaccine-specific influences. The aim of this qualitative study is to understand parents' and nurses' experiences of decision making about childhood immunization, specifically measles-mumps-rubella and/or diphtheria-tetanus-acellular pertussis.

Thorne's interpretative description approach was used to facilitate parents' and nurses' sharing of their experiences and perspectives about childhood immunization to capture the relevancy for nursing practice. Results demonstrate that protection was the unifying goal across all parents and nurses. Motivated by protection of their child, parents searched for information about immunization, deliberated the information and sources to determine the relative benefits and risks of immunization, and assumed responsibility for their decision to accept, delay or decline immunization, and accepted responsibility for the consequences of their decision. Nurses described their role as protectors of child safety and population health. Findings suggested that a tension exists between nurses' professional obligation to protect the public against vaccine preventable diseases, promote immunization update, and, respecting individual parental choice. Parents desired encounters with health care providers that were open to acknowledging and addressing their concerns in order to protect the health of their child. Future nursing approaches recommended by this study included nurse-led education sessions within a community environment, nurse-led forums that outreach to the public regarding fears and concerns about childhood immunizations. Connecting with parents in the community could facilitate better access and improved engagement with health providers, forming partnerships with existing groups, and adding health literacy to the education curriculum could positively impact individual and community health.



# **New Obesity Treatment: fasting, exercise, low carb diet: The NOT-FED Study**

## **PRESENTING AUTHOR:**

Len Kelly (1)

## **AUTHOR(S):**

Terry O'Driscoll (2,3), Robert Minty (2,3), Denise Poirier (4)

## **AFFILIATIONS:**

(1) Anishnaabe Bimaadiziwin Research Program, (2) Northern Ontario School of Medicine, Sioux Lookout, (3) Sioux Lookout Meno Ya Win Health Centre & NOSM, (4) Hugh Allen Clinic.

## **ABSTRACT:**

The objective of this study was to provide information on weight loss to overweight and obese primary care Sioux Lookout patients. We are prospectively measuring the effect on weight loss, waist circumference and related laboratory values over a two year period. Intermittent fasting (e.g. 16 hours per day) and low carb diet (e.g. Mediterranean, Paleo, Keto) information and resources were made available to interested patients.

## **METHODOLOGY**

Literature reviews on intermittent fasting and low carb diets undertaken.

Patients attending primary care clinics in Sioux Lookout interested in weight loss, were given general and publically available information on resources focused on intermittent fasting and a low-carb diet approach to weight loss.

Informed written consent was received for regular q 3 monthly visits with the clinic nurse for blood pressure, weight and waist circumference measurements and laboratory values (A1c and lipids).

## **RESULTS**

ITF studies: 17/18 demonstrate significant weight loss (8%)

Low carb diets: 48/52 demonstrate significantly better weight loss than low fat diets

The first 65 attendees at the 6 month visit, had an average weight loss of 16.0 pounds (SD 7.63). Most patients described improved health and energy levels.

Small, insignificant, decreases in all lipid values (Total, LDL, HDL cholesterol and TG) were noted.

## **CONCLUSION**

Advice on intermittent fasting and a low carbohydrate dietary intake is a low resource, effective intervention for weight loss in a rural primary care setting.

# Culinary Medicine Labs: A Northern Ontario School of Medicine (NOSM) Pilot

## PRESENTING AUTHOR:

Lee Rysdale

## AUTHOR(S):

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## AFFILIATIONS:

(1) Northern Ontario Dietetic Internship Program, Sudbury, ON, (2) Northern Ontario Dietetic Internship Program, Thunder Bay, ON

## ABSTRACT:

Despite growing evidence of the efficacy of nutrition counselling by physicians, multiple factors have kept it outside the purview of clinical medicine including a lack of graduate knowledge and confidence due to inadequate education in medical schools including NOSM. Culinary Medicine Labs (CMLs) are commonly used in American medical schools as a strategy to address the challenges of integrating nutrition into the curriculum.

**Objectives:** The Northern Ontario Dietetic Internship Program (NODIP) partnered with two NOSM medical student groups to pilot and evaluate an interprofessional 'teaching kitchen' model involving Registered Dietitians (RDs), dietetic interns and medical students to determine the perceived need and potential for enhanced nutrition curriculum at NOSM.

**Methods:** Four CMLs were piloted in 2017-18; three in Sudbury and one in Thunder Bay. Each two-hour session was facilitated by two RDs and two dietetic interns. Up to 12 medical students were recruited for each session through word of mouth, posters, student newsletters and Facebook. Participation was voluntary and outside the school schedule. Written evaluations were completed at the end of each session. All responses were anonymous; results were collated to guide future sessions and potential integration into the formal curriculum. Research ethics waivers were received from Laurentian and Lakehead Universities.

**Results:** Overall, there were 35 participants including one physician faculty who attended the four sessions. Evaluations showed increased personal nutrition knowledge and food skills, and planned behaviour change related to nutrition care as physicians.

**Conclusions:** While participants were highly positive and requested more frequent sessions, future CMLs would require dedicated NODIP resources and funding including faculty stipendiaries. Suitable space and adequate equipment on campus and integration into the formal curriculum would increase access and participation for all students. Future sessions could enhance the nutrition curriculum and the roles of RDs in medical education.

# Beliefs and Perspectives of Patients and Providers on Hospital-Based Water Births

## PRESENTING AUTHOR:

Carmen Petrick

## AUTHOR(S):

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## AFFILIATIONS:

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- (2) Medical Class of 2019, Northern Ontario School of Medicine, Lakehead University, Thunder Bay, ON

## ABSTRACT:

Evidence shows water births to be no more risky than normal birthing, but this service is not an option for the majority of women in Northern Ontario due to a paucity of rural midwives and a lack of this service in hospitals. We undertook to understand the prevalent beliefs and perspectives on this birthing approach by surveying all the midwives, family physicians (FPs) and obstetricians providing labour and delivery services in Northern Ontario. We also surveyed a sample of involved nurses and convenience samples of regional women. Of the 362 women of child bearing age completing the survey (90.5% response rate), 81.8% believed water births are safe, 40.9% were interested in having a water birth, and 76.5% wanted to have the option of having a water birth at the nearest hospital that delivers babies. Response rates for providers were: 67.3% for midwives (35 total), 56.8% nurses (54 total), 64.2% FPs (34 total) and 35.5% obstetricians (11 total). Water births were believed to be safe by 100% of midwives, 50% of FPs, 43.4% of nurses and 0% of the obstetricians. 96.9% of midwives, 61.8% of FPs, 64.8% of nurses and 36.5% of obstetricians thought that women were interested in the option of a water birth. 97.1% of midwives, 50% of FPs, 40.7% of nurses and 0% of obstetricians would consider assisting in, or providing hospital based water births in the future. We conclude that the majority of women surveyed in Northern Ontario believe that water births are safe and wish to have the option of a hospital based water birth. However, various professional groups involved in labour and delivery in our region view the safety of water births very differently and there is a great diversity of interest between professional groups in providing this as a hospital based service.

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## **“The gap in maternal mental health in prenatal education: NorthWestern Ontario women’s perspectives”**

### **PRESENTING AUTHOR(S):**

Manal Alzghoul, PhD (1) and Helle Moeller, PhD (2)

### **AUTHOR(S):**

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- (1) Assistant Professor, School of Nursing, Lakehead University
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- (4) Professor Emerita, Depts. Of Sociology and Women’s Studies, Lakehead University and Cross-appointment, Human Sciences, NOSM

### **ABSTRACT:**

Prenatal education programs aim to provide pregnant women and their partners with the information and skills needed to improve pregnancy and birthing outcomes, and to prepare for early parenting. In collaboration with Thunder Bay District Health Unit and with the Support of the Sioux Lookout Meno Ya Win Health Centre and several community organizations we recruited and conducted in-depth qualitative interviews with 40 (18 Indigenous, 9 Immigrant and Refugee, and 13 Euro-Canadian) women in Thunder Bay, Kenora, Sioux Lookout and surrounding areas who had given birth in the past two years. Our project goal was to understand Northwestern Ontario women’s experiences with prenatal education and the knowledge and information they would like about preconception, prenatal health, pregnancy and birthing. Participants were interviewed at locations of their preference and with permission audio recorded. Transcribed interviews were sent to participants for validation and then analysed using NVIVO qualitative software to identify key themes and issues. All of the participants agreed that having knowledge about pregnancy, birthing and post-partum care was important and having more knowledge was viewed as positive and empowering. However, significant gaps in the content of current prenatal education were noted. More than half of the mothers (and women from all three target groups) noted a lack of prenatal education information on mental health concerns, supports, and resources during pregnancy and in the post-partum period. Information on the management of existing conditions such as anxiety and depression through the pre-, peri- and post-natal phases was also desired. Participants recommended increasing the focus on mental health resources and supports in prenatal education classes, holding targeted sessions to identify individual women’s concerns, needs and challenges early in pregnancy, and increasing general prenatal education time in medical visits to allow discussion of individual concerns and issues.

# Implementation of Pediatric Simulation for Emergency Department and Pediatric nurses in a Northern Ontario Regional Hospital

## PRESENTING AUTHOR:

Lynn Smith

## AUTHOR(S):

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(1) (2) School of Health Sciences and Emergency Services, Northern College

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## ABSTRACT:

Pediatric patients are known to experience rapid changes in health status that often go unrecognized until severe. Children admitted to units with moderate to low occupancy are at risk for poor outcomes as staff may be less likely to recognize subtle deterioration. Assessment and monitoring of pediatric patients require nursing staff to have the clinical knowledge and psychomotor skills to effectively provide care and communicate findings to family and other members of the health care team.

This presentation outlines an ongoing partnership between a BScN nursing program and a Northern Ontario Hospital in which we increase pediatric nursing capacity through a simulation based education workshop for Emergency Department and Pediatric nursing staff.

A learning needs assessment of nursing staff was completed (n=26 nurses). This determined the overall learning needs and the preferred modalities for education. The top needs were identified and a half day workshop was developed using high fidelity pediatric simulation manikins. The scenarios were validated by a pediatric content expert and piloted by experienced ED and pediatric nursing staff. Current evidenced based guidelines were incorporated into the scenarios. Tips and tricks for planning and implementation simulation for post registration learners will be provided.



# **Menstrual Symptoms are More Severe than Premenstrual Symptoms: Age, Height, and Anxiety History are Associated with Women's Symptom Patterns**

## **PRESENTING AUTHOR:**

(1) Dani Adduono

## **AUTHOR(S):**

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## **ABSTRACT:**

Research and social discourse related to women's menstrual cycles largely focus on the negative symptomatology of the premenstrual phase. However, there is evidence suggesting that symptom severity may actually be greater during the menstrual phase. Moreover, oral contraceptives (OCs) have been shown to reduce the symptoms present during the menstrual cycle. This project tested two hypotheses: (1) Women report more severe symptoms during the menstrual than the premenstrual phase, and (2) OC use mitigates cycle-related symptoms. A total of 309 women (149 OC users, 160 non-users) provided demographic information and completed the Menstrual Distress Questionnaire (MDQ) for their most recent menstrual cycle. There was support for hypothesis one in that an overall menstrual phase effect, indicating greater symptom severity during the menstrual than the premenstrual phase, was found. More than two thirds of the sample demonstrated this pattern. With the exception of the water retention scale, the same phase effect was found for the remaining six negative symptom subscales on the MDQ. Interestingly, women who showed this menstrual symptom pattern tended to be younger, shorter, and less likely to have a history of anxiety. No support was found for hypothesis two, as OC users and nonusers did not differ between phases in their symptom profiles; and no overall OC group by phase effect for symptoms was found. OC use, however, was associated with lower autonomic reaction symptoms during the menstrual phase. Results suggest that women experience the highest levels of symptom severity during the menstrual phase, and that OC use may not provide substantial symptom relief. The findings highlight the importance of ensuring that a societal bias focussing on premenstrual symptomatology does not overshadow research on menstrual symptomatology. Additionally, identifying predictors of women who experience menstrual versus premenstrual cyclical patterns may improve understanding of hormonal mechanisms and possible treatment options.

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# **Comprehensive hospice palliative care delivery through an ambulatory symptom management program (SMP) and impact on end-of-life care in Sudbury, Ontario 2012-2015: A propensity score matched observational study using administrative data**

## **PRESENTING AUTHOR:**

Michael Conlon, (1)(3)(4)(5)(6)

## **AUTHOR(S):**

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Meigs, M, (1)(3); Santi, S, (1)(3); Earle, C, (5); Hartman, M, (1)(3)

## **AFFILIATIONS:**

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2 Palliative Symptom Management Clinic, Sudbury, ON

3 Northeast Cancer Centre, Sudbury, ON

4 Northern Ontario School of Medicine

5 Institute for Clinical Evaluative Sciences, Toronto, ON

6 ICES North Satellite Site, HSNRI

## **ABSTRACT:**

Hospice palliative care (HPC) offers important benefits to cancer patients and their families, and potential benefits to the health system through cost savings associated with reduced use of potentially aggressive end of life (EOL) care. This study compared EOL outcomes and place of death for a treatment group of palliative decedents who attended the ambulatory Symptom Management Program (SMP) at the Northeast Cancer Centre of Health Sciences North when compared to a propensity score-matched observational control group (1:1) of palliative decedents. EOL measures were derived using administrative data made available through the Institute for Clinical Evaluative Sciences (ICES) following published methodology, and included: multiple emergency department visits, hospital admissions, ICU admissions, chemotherapy use, and place of death. Proportions were tested for significance using McNemar's test and used to calculate Absolute Risk Reduction (ARR), number needed to treat (NNT), relative risk (RR) and associated 95% Confidence Intervals (95% CI). A total of 914 SMP decedents were identified, and the majority of SMP members were matched (754; 82.5%). Within the matched cohort, all EOL outcomes except use of chemotherapy were significantly lower in the treatment group. For example, the ARR for ICU admissions was 11.14 (11.11-11.17) and NNT was 8.98 (8.95-9.00). Similarly, there was a strong association of avoidance of death in acute care hospital, with an ARR of 19.89 (19.78-20.00); NNT of 5.03 (5.00-5.06); and RR of 0.55 (0.47-0.64). Within our study limitations, these results suggest that provision of HPC through the SMP is protective for most measures of potentially aggressive EOL care and death in acute care hospital, even when anti-cancer therapy continues. Planned future research to complement these findings will assess family satisfaction with care provision.

# **Ongomiizwin Education: The pursuit of a health career with culturally relevant Indigenous Student Support**

## **PRESENTING AUTHOR:**

Dr. Melinda Fowler (1)

## **AUTHOR(S):**

Zach Hall (2); Matthew Genung (2); Carly McLellan (2); Amanda Fontes (2)

## **AFFILIATIONS:**

- 1) University of Manitoba Faculties of Community Health Sciences and Family Medicine  
-Indigenous Institute of Health & Healing, Ongomiizwin Education, Health Services  
and Research
- 2) University of Manitoba, Faculty of Health Science, College of Medicine

## **ABSTRACT:**

The Indigenous Institute of Health & Healing, Ongomiizwin education has a keen interest in attracting First Nations, Metis, & Inuit peoples to health careers at the University of Manitoba. The Elders-In-Residence program is the foundation of the Ongomiizwin Education office and it has been strategic in creating a safe and supportive space for its learners especially in light of the Truth & Reconciliation Commission. Ongomiizwin Education also has Indigenous mentors on staff to ensure the students have the opportunity to meet and discuss any topics pertinent to their health careers. In addition, since 2015, the Institute has been supporting prospective Indigenous medical students in providing cultural teachings and preparation for medical school interviews along with networking time through hosting a MSEI 3 day workshop. University of Manitoba is a leader with Indigenous Health and it is a model for other schools across the country. Overall, University of Manitoba through the Indigenous Institute is working to directly address the TRC calls to action #23 & #24. This panel presentation will highlight the strengths and the areas that the Ongomiizwin Education office should consider expanding and growing in the future from the Director's & students standpoint.

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# Diabetic A1C testing and increasing diabetic management in rural Northwestern Ontario with incentives

## PRESENTING AUTHOR:

Jai Mashru (1,2)

## AUTHOR(S):

Moir, A (1,2), Gagnon, Y (3), Kaus, C (1), Smith, E (1), Gagnon, G (3)

## AFFILIATIONS:

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(2) Northern Ontario School of Medicine (NOSM)

(3) Points North Family Health Team, Vermillion Bay

## ABSTRACT:

Diabetes is rising in prevalence worldwide, with Ontario reporting one of the highest rates of diabetes in Canada. Meanwhile, high rates of non-adherence to available therapies are being linked to “increases in morbidity, mortality, and health care costs”. Patients in rural areas in particular have been shown to be less likely to receive the recommended diabetes tests, even with incentive billing codes in place. Past research has shown that small incentives, in the form of a gift card can increase management of illnesses. Using this knowledge, this study aims to measure the impact of small financial incentives on compliance of diabetic testing as a form of disease management. Specifically, federal recommendations suggest that patients complete an A1c blood test, every 3 months. Data will be collected on the number of A1c tests conducted by diabetic patients in the small Northwestern Ontario city of Dryden and neighbouring township of Machin, Specifically, federal recommendations suggest that patients complete an A1c blood test completed every 3 months. Participants were split into two groups: an incentive and a control group. Every 6 months, the number of A1c tests that were conducted in the time period are recorded: and a letter was sent to each participant either containing gift cards for the incentive group, or a reminder of enrolment for the control. After 6 months of minimum enrolment with 118 patients, the incentive has increased the occurrence of A1c blood tests, when compared to control. The study is still undergoing enrolment and will conclude upon reaching 200 participants with 2 years of data.

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# The metabolic syndrome and its components as prognostic factors in metastatic colorectal cancer

## PRESENTING AUTHOR:

Melissa Reed

## AUTHOR(S):

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## AFFILIATIONS:

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- (2) Algoma District Cancer Program, Sault Area Hospital, Sault Ste. Marie, ON
- (3) Division of Clinical Sciences, Northern Ontario School of Medicine, Sudbury, ON

## ABSTRACT:

**Background:** Components of the metabolic syndrome (MetS) are involved in colorectal cancer development and the incidence of the disease is higher in obese and diabetic patients. Nevertheless, the value of these diseases or the MetS as a whole as prognostic markers once colorectal cancer is diagnosed is controversial.

**Patients and Methods:** Patients with metastatic colorectal cancer treated in our center over a six year period were reviewed and data on baseline characteristics of the patients and their cancers were extracted. Data on the presence and pharmacologic treatments of the four components of the MetS (obesity, diabetes, hypertension and dyslipidemia) were also recorded. Overall survival (OS) and progression free survival (PFS) Kaplan-Meier curves of the various groups were constructed and compared with the Log-Rank test.

**Results:** One hundred twenty three patients were included in the analysis. The prevalence of the four MetS components was 66.1% for overweight/ obesity, 25.2% for diabetes, 61% for hypertension and 41.5% for dyslipidemia. Among the four components of the metabolic syndrome, none were associated with either PFS or OS. Diabetes approached significance for PFS ( $p= 0.08$ ). The MetS as a whole was also not prognostic for survival outcomes. MetS was not prognostic even if the overweight category was not considered as a positive element of the syndrome.

**Conclusion:** These data suggest that diabetes or other metabolic syndrome elements are not prognostic factors for PFS or OS in metastatic colorectal cancer. Further investigation may be warranted with a focus on refinement of the metabolic evaluation.



# Poster Abstracts

**The research work in the following abstracts  
are all original and innovative.**

The poster abstracts are in alphabetical order by  
presenting author.

*Abstracts have been published as submitted.*

# Global Health in Surgery: A Platform for Learner-Faculty Growth: The West African Experience

## PRESENTING AUTHOR:

Emmanuel Abara

## AUTHOR(S):

Abara E (1,2,3); Abara N.O (4); Osaghae S (5)

## AFFILIATIONS:

Richmond Hill Urology Practice & Prostate Institute (1); Sensenbrenner Hospital, Kapuskasing (2); Northern Ontario School of Medicine, Sudbury/Thunder Bay Ontario (3); University of Texas Medical Branch, Galveston, Texas USA (4); University of Benin Teaching Hospital, Benin-City, Nigeria (5)

## ABSTRACT:

**Introduction and Objectives:** Since 2012, a group of surgical health professionals have undertaken an outreach to marginalized populations in West Africa with the main aim of 'building capacity while providing service'. By 2014, residents/learners have been encouraged to attend to gain experience and develop professionalism. We report the Burkina Faso experience of 2017.

**Methods:** For seven days, health professionals from 8 countries functioned as a team. We worked at the Ouahigouya District Hospital. The program included: Out-patient assessments; Surgeries-pediatric, oncology, general surgery, otolaryngology, orthopedics, gynecology, and urology; "one to one" accommodation, Case-based Learning; and an interactive workshop; Learner-Learner, Faculty-Faculty and Peer-Peer Learning was abundant. The host provided accommodation, meals and local transportation. Participants were responsible for their travel arrangements.

**Results:** There were 7 'diaspora international' and 10 local surgeons, 2 anesthetists and several nurse anesthetists, OR nurses and other support staff. Two residents (from the Cameroons and Galveston, Texas, USA) were present. There were 200 cases in all. Short-term outcomes were satisfactory. Long-term results will be necessary to validate the efforts. We worked together using the resources available. The educational content of the outreach was described by most as transformative as the health care professionals shared knowledge and skill while patients received excellent collaborative care.

**Conclusion:** Short-term surgical outreach like this can be questioned as ineffective and unsustainable. However, the building of interdisciplinary, collaborative partnerships that are respectful and culturally sensitive is an asset. Our medical students become winners and partners of global health for all.

*Poster Station #1*

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# Using Arts-Based Research Methods to Evaluate Transformational Learning among Adults with Cancer

## PRESENTING AUTHOR:

Susan Boyko (1)

## AUTHOR(S):

Boyko, S. (1)

## AFFILIATIONS:

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## ABSTRACT:

**Background:** Despite provincial improvement efforts, quantitative patient survey results for adults with cancer consistently indicate lower satisfaction with how healthcare professionals address their cognitive and emotional needs. Qualitative methods such as narrative inquiry have the potential to provide greater insight into adults' personal experience.

**Methods:** Qualitative, arts-informed narrative inquiry was used to examine how illness narratives and arts-based artifacts deepen understanding of the cognitive and emotional needs of adult women with cancer. Six adult women who had experienced diagnosis, treatment and were living with cancer were selected by purposeful sampling. Data collection methods included semi-structured interviews and the researcher's journal notes. Using the case-synopsis method, transcripts were reduced to individual narratives to extract themes. Data analysis revealed additional connections between themes derived from the women's illness narratives and their arts-based artifacts. The researcher illustrated these findings by creating poetry, drawings and a collective body-map to communicate their experience.

**Findings:** Analysis of the women's stories illuminated how current clinical and patient education practice did not support their transformational learning. Transformational learning requires opportunities for adults to reflect, seek information, plan and gain confidence in adapting to new experiences. Information and emotional support was often not provided when it was needed or in a manner appropriate to how each woman learns best. The findings also demonstrated how arts-based methods expand what is known about the cognitive and emotional needs of adult women with cancer and provide adult educators with direction for planning transformative education that fosters self-management.

**Conclusion:** Qualitative methods do not intend to generalize from findings but instead create understanding by touching the emotions of the intended audience. This study discusses implications for transformational adult education practice in medicine and educational research, offers initial thoughts on arts-based methods to foster perspective transformation, and suggests simple tools for patient education practice.

*Poster Station #3*

# Trends in Preventable Hospitalizations in Northern Ontario

## PRESENTING AUTHOR:

John Dabous

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## AFFILIATIONS:

1 - Northern Ontario School of Medicine

2 - Laurentian University, School of Rural and Northern Health

3 - University of Ottawa, Department of Family Medicine

## ABSTRACT:

Disparities in access to primary care services between Northern Ontario and the rest of the province currently exist. However, current evidence in this regard is often based on self-reported patient data or in aggregate for all of Northern Ontario. This study used health service utilization indicators as a proxy for access to primary care in various regions of Northern Ontario, including variations based on rurality.

The health outcomes used for this study were hospitalization rates and emergency department visits due to an Ambulatory Care Sensitive Condition (ACSC). ACSCs are a group of conditions that would be best managed with efficient and timely access to primary care. First, we explored hospitalization rates and emergency department visits due to an ACSC over an extended period of time, based on geography and rurality. We found different trends in health service utilization based on geography in the province of Ontario, over a 10 year time frame. By focusing on the specific time periods, we can infer the effect of different primary care reforms within the province and their association with health outcomes. Of specific interest within Northern Ontario, was the implementation of Family Health Teams, the establishment of the Northern Ontario School of Medicine (NOSM), and the graduates of NOSM entering the workforce. Second, we will also describe the patient and family doctor characteristics of this cohort, which will provide granular information on access to primary care in specific regions of Northern Ontario that can inform quality improvement initiatives and future decision making.

*Poster Station #5*

# Comparison of Readmission and Death Among Cardiac Patients in Northern vs. Southern Ontario

## PRESENTING AUTHOR:

Patrick J. Donio

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## ABSTRACT:

**Background.** Northern Ontarians have higher population age-standardized mortality rates than the rest of the province, and the majority of deaths in Northern Ontario were attributed to circulatory diseases. It is unknown if differences in hospital-based acute cardiovascular care contribute to the differential outcomes in Northern vs. Southern Ontario.

**Objectives.** To examine whether mortality and readmission rates differ in Northern and Southern Ontario among patients admitted with acute cardiovascular disease conditions.

**Methods.** Using datasets, we identified index admissions for acute myocardial infarction (MI), heart failure (HF), atrial fibrillation (AF), or stroke, from Apr 2005 to Mar 2015. We determined the risk of readmission or death for Northern compared to Southern Ontarians, adjusting using multivariable Cox regression analysis. Physician care was determined.

**Results.** Cumulative incidence of mortality over 1 year did not differ in the North vs. the South for acute MI and HF, but there was significantly higher incidence of readmission in the North. Similar findings were observed for AF and stroke. After multivariable adjustment, the hazard ratio [HR (95%CI)] for mortality in the North was 1.06 (1.03-1.10) for acute MI ( $p=0.001$ ), but HRs were 1.02 (0.99-1.06) for HF, 0.95 for AF (0.89-1.02), and 1.00 for stroke (0.97-1.04) compared to the South. However, readmission rate was significantly increased in the North for all conditions (all  $p < .001$ ): acute MI (HR 1.28, 95%CI: 1.25-1.32), HF (HR 1.20, 95%CI: 1.16-1.23), AF (HR 1.27, 95%CI: 1.21-1.32), and stroke (HR 1.31, 95%CI: 1.26-1.37). In all conditions, early specialist care (cardiologist or neurologist) was significantly less likely in the North with multivariable-adjusted HRs for 30-day specialist consults/visits ranging from 0.51 to 0.70 ( $p < .001$ ).

**Conclusions.** Readmissions for cardiovascular conditions were substantially higher in Northern compared to Southern Ontario, while differences in mortality were not different or less pronounced.

*Poster Station #7*



## **Qanuinnngitsiarutiksait (tools for the well-being/safety of Inuit/people): Developing Population-Based Health and Well-Being Strategies for Inuit in Manitoba**

### **PRESENTING AUTHOR:**

Dr. Melinda Fowler-Woods

**AUTHOR(S):** (1) Josée Lavoie, (1) Melinda Fowler-Woods (1) Sara Goulet, (1) Maxine Angoo, (1) Leah McDonnell, (2) Rachel Dutton, (3) Alan Katz, (3) Nathan Nickels, (4) Wayne Clark, (4) Jennifer White, (5) Sabrina Wong, (6) Gwen Healy, Julianne Sanguins, and Derek Kornerlsen,

### **AFFILIATIONS:**

(1) University of Manitoba, (2) Manitoba Inuit Association, (3) Manitoba Centre for Health Policy, (4) Winnipeg Regional Health Authority, (5) University of British Columbia, and (6) Qaujigiartiit Health Research Centre

### **ABSTRACT:**

The Manitoba Inuit Association, in partnership with Ongomiizwin Research, have engaged in a research project, *Qanuinnngitsiarutiksait*, which intends to track the trends of health care and social services usage of the Inuit population in Manitoba, in order to determine what gaps in services exist and what further supports are needed. *Qanuinnngitsiarutiksait* focuses on the development and support of Inuit-specific services that cater to Inuit populations travelling and living in Manitoba to access health and social services that are required to support the lives of Inuit in Manitoba. There are over 1,000 Inuit in Manitoba that are accessing health care and services. Additionally, every year, thousands of Inuit from Nunavut have to come to Manitoba to get healthcare and other services. Some stay for short periods of time, while others have to stay on a longer-term basis, ranging from weeks to months, in order to access services, while others are permanently medically relocated. Our objectives are to document the experience and needs of Inuit accessing health and other services in MB, and develop strategies to enhance these experiences and facilitate transitions to and from NU. The project will 1) develop detailed profiles of Inuit accessing services including length of residence (if not permanent), types of services accessed, met/unmet needs, costs/challenges associated with relocating and accessing services in MB; and 2) explore solution-oriented options with impacted families, the Manitoba Inuit Association, and allied health agencies presently serving Inuit in Manitoba.

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*Poster Station #9*

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# Exploring Simulation for Promoting Cultural Competence in an Academic Health Sciences Center: A Preliminary Study

## PRESENTING AUTHOR:

Roslyn Graham (1)

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## AFFILIATIONS:

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## ABSTRACT:

Background: Cultural competency skills are now widely recognized as essential to the provision of compassionate and safe care. In response, many health organizations are now developing educational programs targeting health professionals with the aim of increasing cultural competency in healthcare delivery systems and improving the experiences of patients. While cultural competency education and training programs are increasing, research investigating the impact of these programs and their impact on patient experiences and perceived safety is still lacking.

Goal: The goal of this preliminary study was to explore how a novel simulation-based program called The Respect Project is working to enhance culturally safe and patient-centered care in an Academic Health Sciences Center in Northern Ontario.

Methods: Through an exploratory qualitative research design, we are examining the experiences of diverse stakeholders (patient advocates, program leaders, and staff) with The Respect Project, with a focus on understanding how simulation can serve to improve compassion, respect, and kindness. Data collection includes focus groups and interviews that are recorded and transcribed, then later compared with notes taken during the data collection process. Transcripts are thematically analyzed using a six-step, content-driven approach that is particularly suitable for exploratory studies.

Results: In this presentation, we will report results from the preliminary study that included 4 focus groups and 15 semi-structured interviews. We will highlight how this research is not only helping to inform an Academic Health Sciences Center in Northern Ontario, but how it is helping to inform other Health Sciences Centers.

Conclusion: In the face of so many pressures in the healthcare system, information and communication challenges can obscure the promotion of, and assurance toward, safety and quality of patient care. The opportunity to understand cultural competency education and training and its impact on quality of care has never been more important.

*Poster Station #11*

# Exploring Undergraduate Medical Students' Perceptions and Engagement with Social Accountability: A Qualitative Study

## PRESENTING AUTHORS:

Jacqueline Harvey (1)

## AUTHORS:

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## ABSTRACT:

Social accountability has become an integral feature of medical schools and is a key competency under the CanMEDS Health Advocate role. However, as expressed in the *Global Consensus for Social Accountability of Medical Schools* (2010), there is an ongoing need to understand *how* the principles of social accountability are experienced by students and *how* medical schools can better engage students' in the ongoing critical appraisal of their social accountability mandates.

The aim of this exploratory qualitative research study was to examine students' perceptions, engagement, and learning of social accountability in the context of undergraduate medical education. Data collection included semi-structured focus groups and interviews with undergraduate medical students, that lasted between 30-60 minutes, materials students found helpful for learning about SA, and research field notes. In the interviews, students were asked to share experiences that had influenced their understanding and appreciation for social accountability, while also reflecting on elements of a student-orientated social accountability assessment tool.

Data was transcribed and compared with field notes taken during the data collection process, and the interview transcripts were sent back to participants for verification. Themes were derived using Lichtman's (2010) six-step, content-driven, thematic analysis approach, that is particularly suitable for exploratory studies and moves from raw data to meaningful concepts.

This study responds to the call for research that explores how to better engage undergraduate medical students in the debates and dialogue about social accountability medical education in Canada. While social accountability is a guiding principle that is leading undergraduate medical education in Canada, there is a need to identify opportunities for students to support the implementation and assessment of social accountability.

Poster Station #13

# **Predictors of a medical condition among patients presenting to the Emergency Department after amphetamine use**

## **PRESENTING AUTHOR:**

Jessica Kent-Rice (1)

## **AUTHOR(S):**

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## **AFFILIATIONS:**

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## **ABSTRACT:**

Amphetamine use is an increasing problem worldwide and is currently the most commonly abused psychostimulant. Individuals using amphetamines often present to the Emergency Department (ED) in an agitated state with complications ranging from drug induced psychosis to life threatening medical complications such as rhabdomyolysis and myocardial infarction. Given the range of benign to life threatening complications of amphetamine intoxication, the objective of this study was to identify predictors associated with any medical condition among amphetamine users who presented to the emergency department. This study specifically examined benzodiazepine, antipsychotic and restraint administration as well as demographic features as predictors of any medical condition among patients presenting to the ED after using amphetamines. A medical condition was a composite variable including a range of known medical complications of amphetamine toxicity. Data was obtained through a retrospective chart review of medical records at Sault Area Hospital, an accredited 289 bed community hospital in Northern Ontario spanning a 1-year period. Using ICD-10 diagnostic codes a total of 1591 charts were screened identifying 128 participants as having presented to the ED primarily for amphetamine intoxication. It was determined that benzodiazepine administration predicted a medical condition (Odds Ratio 3.33; 95% CI; range (1.31, 8.45);  $p=0.0113$ ). Practically this suggests that patients presenting to the ED with amphetamine intoxication given benzodiazepines should be investigated to rule out a medical condition. In conclusion patients presenting to the ED after amphetamine use who are administered a benzodiazepine should prompt clinicians to perform a general physical exam and broad investigations to ensure a medical condition is ruled out.

*Poster Station #15*

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# Identification of cell surface receptor of STb in the intestinal cell line STC-1

## PRESENTING AUTHOR:

Eyad Kinkar 1

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## ABSTRACT:

Enterotoxigenic *Escherichia coli* (ETEC) may elaborate a number of virulence factors during infection. Most notable of such factors are three toxins, the heat-labile or LT toxin, the heat stable or STa toxin, and another small heat-stable toxin known as STb. The STb is characterized as a thermostable, methanol insoluble, and protease sensitive low-molecular-weight polypeptide (~5.2 kDa). Research has shown that STb is involved in a variety of infections leading to diarrhea in both humans and animals. STb causes intestinal secretion of prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) and serotonin through cyclic-nucleotide-independent pathways. Although the molecular mechanisms on the cellular targets and subsequent intracellular signaling are well established for the two other toxins of ETEC (LT and STa) they are still controversial in the case of the STb toxin. Our objective in this study is to use an intestinal cell line, STC-1 cells, and tagged STb toxin to identify the cell surface receptor for the toxin. This information may then shed light on how the intracellular signaling is triggered and how these events lead to the observed experimental and clinical observations upon treatment of intestinal tissues with STb.

Poster Station #17

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# Where the dice stops: understanding and confronting racism and discrimination in community-based healthcare in Manitoba First Nations communities

## PRESENTING AUTHOR:

Grace Kyoon-Achan

## AUTHOR(S):

Wanda Phillips-Beck (MSc)<sup>4</sup>, Stephanie Sinclair (MA)<sup>4</sup>, Kathi Avery Kinew (MSW, PhD)<sup>4</sup>, Josée Lavoie (PhD)<sup>1..3</sup>, Alan Katz (MBChB, CCFP)<sup>1.2.5</sup>

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- 3- Ongomiizwin-Research, University of Manitoba
- 4- First Nations Health and Social Secretariat of Manitoba
- 5- Department of Family Medicine, University of Manitoba

## ABSTRACT:

**Background:** Manitoba First Nations are underserved in terms of primary healthcare delivery. This is due in part to the role of racism and discrimination of healthcare professionals and systemic racism. The IPHiT program of research is a 5 year funded partnership between university-based researchers, the First Nations Health and Social Secretariat of Manitoba and eight Manitoba First Nations communities. The aim is to understand all ramifications of First Nations community-based primary healthcare landscape and to support existing strengths, propel innovation and highlight transformations.

**Methods:** A qualitative study was conceptualized and implemented using community-based participatory research approach. Participating communities collaborated in designing the study; providing valuable input to the questionnaire development, leading the data collection process and participating in the data analysis. Grounded theory guided the analysis which was completed using Nvivo 10 software.

**Results:** Racism and discrimination continue to define healthcare relations with First Nations communities. Incidences are reported both on-reserve with visiting healthcare professionals and off-reserve with professionals in healthcare facilities as well as in accommodations where patients stay while receiving care. Individuals leaving communities for care off-reserve are also poorly resourced further complicating care and threatening their wellbeing.

**Conclusion:** First Nations peoples' experience of healthcare is colored by ongoing experiences of racism and discrimination within the Canadian healthcare system. These vices compromise both access to and quality of healthcare which in turn have direct implications on the overall health of First Nations peoples.

*Poster Station #19*

# Rural prescribing teaching goes mainstream for Monash University medical students

## PRESENTING AUTHOR:

Anne Leversha

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- (1) School of Rural Health, Faculty of Medicine, Nursing & Health Sciences, Monash University, Australia
- (2) Centre for Medicine Use & Safety, Faculty of Pharmacy & Pharmaceutical Sciences, Monash University, Australia

## ABSTRACT:

Safe prescribing is an important skill that should be mastered prior to medical student graduation. The author, a clinical pharmacist, was concerned about the quality of prescribing by newly registered doctors, especially since they write the majority of prescriptions in the hospital setting. Medical students at Monash University were previously not exposed to any formal teaching in this domain.

A prescribing module was developed and delivered to final year medical students on their rotation to a rural clinical school. The face-to-face teaching session involved the students charting the inpatient medications and discharge prescriptions. Included in this was marking each student's work which allowed me to fully explore with them the many pitfalls associated with prescribing. Students came to appreciate that charting not only included accurate documentation, but also clinical decision making. This module has provided a great opportunity for interprofessional teaching and learning.

With an increasing focus on medication safety, this module, previously was only provided in the rural clinical school at Traralgon, a Victorian regional centre, has now been adopted by the Faculty of Medicine at Monash University and is compulsory for all final year medical students.

Poster Station #21

# Health related quality of life in Head and Neck Cancer patients receiving radiation therapy

## PRESENTING AUTHOR:

Peggy Meigs (1)

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1. Epidemiology, Outcomes and Evaluation Research, Health Sciences North Research Institute, Sudbury ON
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## ABSTRACT:

Radiotherapy is a modality used in the treatment of cancer. Treatment toxicities from radiotherapy for head and neck cancer can be acute or chronic and include dysphagia, dermatitis, tube dependence and salivary gland hypo-function. Assessing quality of life (QOL) during radiotherapy treatment provides important opportunities to monitor and respond to patient reported outcomes.

People with head and neck cancer who received treatment at the Northeast Cancer Centre of HSN were invited to participate. Participation included consenting to study, providing a DNA sample, and completing QOL questionnaires prior and throughout treatment. We used the European Organization for Research and Treatment of Cancer (EORTC) QLQ30 and HN43. The validated QLQ30 is composed of both multi-item scales and single-item measures including a global health status/QOL scale which range in score from 0 to 100.

Of the 107 patients that have been recruited, 36 have completed the QOL tool at all six follow up time points (mid treatment, end treatment, 5 weeks post, 6 month post, and 12 month post). Of the baseline and follow up questionnaires completed, the global health status/QOL shows the lowest quality of life occurs at the end of treatment (3<sup>rd</sup> time point) with a mean score of 49.6. The highest quality of life occurs at the 12 month follow-up with a mean score of 75.5.

Patient's reported the lowest quality of life and highest symptom discomfort at the end of treatment, which appeared to improve beyond baseline scores for most participants. Also, the 12 month time point improves upon baseline and with future analysis we may be able to determine if these changes are significant. Future analysis of symptom scales will be conducted as well as any potential treatment differences between smokers and non-smokers.

*Poster Station #2*

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# Chronic Pain in High Frequency Users of the Thunder Bay Regional Health Sciences Centre Emergency Department

## PRESENTING AUTHOR:

Ocean Nenadov

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## ABSTRACT:

Defined as pain lasting longer than 3 months or longer than the expected time of healing, chronic pain (CP) affects 1 in 5 Canadians daily (1). A lack of primary care access, community resources, and significant suffering often leads to frequent and expensive visits to the Emergency Department (ED), and admissions to hospital. Unrelieved chronic pain has been shown to cause avoidable ED visits and admissions (2). ED use in the Northwest Local Health Integration Network (LHIN) is the highest in Ontario, and the Thunder Bay Regional Health Sciences Centre (TBRHSC) is the highest in this area (3). The methods for this study included a retrospective analysis of 268 randomly selected high frequency users (HFU) of the Emergency Department, defined as having 8 or more visits to the TBRHSC ED in the 2014-2015 fiscal year. Results will include an Excel-based analysis of the percentage of users who present with CP, the reason for the visit, number of admissions, length of stay, and how many patients have access to a primary care physician/practitioner. It was found that preliminary data shows 12% of HFU of the ED at the TBRHSC are for CP, and often present with complex concerns that are not completely addressed in the ED. The TBRHSC is one of the highest traffic EDs in Canada. A very small population of CP sufferers have access to interdisciplinary pain management. Improving community resources is a requirement to reduce the costly demand on the ED as well as those living with CP. This poster/publication presents the utilization and analysis of the data derived from CP sufferers of the ED in the TBRHSC.

Poster Station #4

**Working toward balancing the power in Research: Collaborating with University and Indigenous Communities in Manitoba. The experiences in the program of research entitled “*Innovation in Community-based Primary Health Care (CBPHC) Supporting Transformation in the Health of First Nation and rural/remote communities in Manitoba (iPHIT)*” program of research.**

**PRESENTING AUTHOR:**

Wanda Phillips-Beck

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3- Manitoba First Nations Centre for Aboriginal Health Research, University of Manitoba

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5- Department of Family Medicine, University of Manitoba

**ABSTRACT:**

**Objective:**

We will share what we have learned through our experiences in working on a research project aimed at learning about the elements of health/system communities perceive as important to First Nations communities; utilize this knowledge to document/build CBPHC models; test these model(s) for effectiveness and ultimately, improve the scope and delivery of CBPHC services.

**Approach:**

The approach was developed jointly between key individuals at Nanaadawewigamig and the University of Manitoba partnering with 8 First Nations (FN) in Manitoba on a 5-year program of research. Central to the governance structure was the three FN ethical principles of 1) free prior informed consent, 2) ownership control and access and possession over data, and 3) respect for FN ethical principles. We aim to add to the limited body of literature describing concrete action and the process of implementing these three principles based on our experience.

**Results:**

We learned that partnership models where First Nations are leading and coordinating research project results in better access to community and regional networks and policy tables, greater likelihood of obtaining community consent, greater than expected participation rates, improved trust in the research results and therefore higher likelihood of action taken on research results, or implementation of findings. This approach is not without its challenges as well.

**Conclusion:**

This presentation will describe the process of implementing a balanced approach to research in working with First Nation/Indigenous communities. We will share concrete examples of how we actioned the three ethical principles outlined above. We will also share our successes and how we have overcome or met some of the challenges, which in the end, has resulted in many positive benefits to both community and improved quality and trust in the data.

Ultimately, we will clarify and temper expectations on the part of both university and community-based researchers.

Poster Station #6



# A Retrospective Comparative Case-Series of Infective Endocarditis in Northern Ontario and Southern Ontario

## PRESENTING AUTHOR:

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## AUTHOR(S):

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A. R. Moise (2)

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## ABSTRACT:

**Background:** Infective endocarditis (IE) is a pathogenic infection of the valves and endocardial tissue. As the heart function becomes compromised, IE can often lead to end-organ failure and life-threatening complications. It was reported that there were 113 IE-related deaths in Canada in 2009, with a crude mortality of 0.3 per 100,000. Evidence suggests that intravenous drug users are at an increased risk of IE. One recent study discovered that there has been a significant increase in IE linked to young people who use intravenous drugs. Adding to this concern is the current rise in opioid addictions, called the opioid crisis. In fact, opioid-related mortalities in Ontario have risen from 571/100,000 in 2010 to 865/100,000 in 2016.

**Methods:** This case series will focus on comparing trends in IE admissions between southern and northern urban, and northern rural hospitals in Ontario, Canada. This study will compare demographics, prognosis, and treatments of IE patients discharged from a hospital to determine if the causative factors differentiate between regions. It hypothesized that there will be a shifting pattern in the incidence of intravenous drug use-related IE versus nosocomial or medical device-related IE admissions when comparing different demographics and/or population groups based in northern and southern Ontario.

**Results:** Results of this study will be made available during the 2018 Northern Health Research Conference on September 21-22 in Kenora, Ontario.

**Conclusion:** It is hopeful that the results from this study will help inform future public health intervention and clinical policies.

*Poster Station #8*

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# Examining how patients perceive and interact with their web portal-based laboratory results in a community-based Family Health Team

## PRESENTING AUTHOR:

Melissa Reed

## AUTHOR(S):

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(2) Northern Ontario School of Medicine, Sudbury, ON

## ABSTRACT:

**Background:** The movement to improve patient centred care, combined with the development of user-friendly technology has led to the spread of patient accessible, online health records, called electronic patient portals (EPPs). EPPs are used to communicate with physicians, view personal health information and receive test results. Little research has examined the effects of providing patients with access to their laboratory results on their healthcare and health behaviours.

**Objective:** The purpose of this study was to gain insight into the use of the myCARE patient portal at the Group Health Centre (GHC), understand why patients use myCARE to access their laboratory results, and explore its impact on their health.

**Methods:** Patients of one primary care physician at the GHC who used the laboratory results section on myCARE were recruited. Semi-structured interviews (n = 21) were conducted, transcribed, and analysed using a grounded theory approach.

**Results:** Participants used myCARE for a variety of reasons, including to view their test results. Their interaction with their laboratory results varied based on their level of understanding of their results. Benefits of online access to test results were identified, including convenience, fewer appointments, and decreased anxiety. Some participants described increased engagement in their healthcare and positive health changes resulting from their EPP-based test results. However, some were concerned about receiving alarming test results.

**Conclusions:** Information from this study may help researchers gain insight into the interactions between patients and EPPs, and the effects of EPPs on patient health and healthcare experience.

*Poster Station #10*

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# Diabetes, obesity, and the metabolic syndrome as prognostic factors in stages I to III colorectal cancer patients

## PRESENTING AUTHOR:

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## ABSTRACT:

Background: Attempts to introduce prognostic factors for survival outcomes in localized colorectal cancer patients receiving surgical treatment with or without adjuvant therapies, beyond the classic staging parameters, have been met with limited success. Obesity and diabetes mellitus are among the conditions that predispose to colorectal cancer but their value as prognostic markers once the disease is diagnosed is controversial.

Patients and Methods: This study examines the prognostic value of the components of metabolic syndrome in a retrospective series of colorectal cancer patients with stages I to III disease followed in a single center.

Results: Among the four components of the metabolic syndrome, only diabetes was independently associated with progression-free survival (PFS) while obesity, hypertension, and dyslipidemia were not. No associations of the metabolic syndrome (MS) or its components with overall survival (OS) were observed in multivariate analysis.

Conclusion: These data pinpoint to diabetes mellitus (DM) as a possible prognostic factor for PFS in localized colorectal cancer and further cast doubt for the value of obesity as measured by body mass index (BMI) on local stage colorectal cancer prognosis.

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*Poster Station #12*

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# **Nutrition and Autism Spectrum Disorder: A needs assessment and environmental scan to inform nutrition curriculum and training for non-medical diagnostic and therapeutic service providers in Northern Ontario**

## **PRESENTING AUTHOR:**

Lee Rysdale

## **AUTHOR(S):**

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## **ABSTRACT:**

**Objectives:** To determine the nutrition-related knowledge, attitudes, and perceptions of non-medical practitioners working with children diagnosed with Autism Spectrum Disorder (ASD); and, to identify relevant parent and professional resources to inform an evidence-based curriculum.

**Methods:** A comprehensive literature review using MEDLINE and PsychInfo was conducted in spring 2017 to develop and content validate (n=3 registered dietitians (RDs) with topic expertise) a 20-item online survey. The survey was administered (December 2017) to a convenience sample of 149 staff at Child and Community Resources (e.g., therapists, managers, and psychologists). Results were analyzed using Qualtrics® software and pivot tables. A grey literature search, including PEN® (Practice-Based Evidence in Nutrition) and pediatric hospital websites, was also conducted; inclusion criteria included evidence-based presentations or toolkits with a nutrition component and/or discussed the RD role in ASD.

**Results:** Sixty-one staff (41% response rate), all female, completed the survey. The majority (78%, 47/60) agreed an RD should be involved in the nutritional assessment of children with ASD, however many respondents were unsure if these children have more gastrointestinal (GI) complaints (51%, 29/57) and whether gluten-free casein-free diets (42%, 25/60), multivitamin supplements (52%, 31/60), or prebiotics and probiotics (80%, 48/60) were recommended nutrition interventions. Respondents did not feel confident in assessing food and nutrient intake (30%, 17/57) or feeding behaviours (26%, 15/57) in children with ASD. Of the nutrition resources screened (n=232), 25 met the inclusion criteria.

**Conclusions:** There was an overall lack of knowledge related to common GI complaints, feeding behaviours, assessment of food/nutrient intakes and appropriate nutrition therapies for children with ASD. Numerous resources exist that can be adapted to develop nutrition curriculum for these practitioners. With one in 66 Canadian children diagnosed with ASD, non-medical provider training, including nutrition screening and referrals to an RD, can improve the overall nutritional status of these children.

*Poster Station #14*

# Measuring the Commitment of Medical Schools to Rural Primary Care (in the United States)

## PRESENTING AUTHOR:

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## ABSTRACT:

**Introduction:** Rural communities of the United States frequently experience shortages of rural primary care providers. This study addressed two questions: (1) Which medical schools produce high proportions of graduates who choose to practice in rural primary care settings? (2) What are the organizational and educational factors that predict high output of rural primary care physicians?

**Methods:** Using American Medical Association Masterfile data, we ranked 147 U.S. allopathic and osteopathic medical schools with graduates from 2001-2010 according to the proportion of graduates in rural primary care practice as of 2016. We searched school websites to compile indicators of organizational commitment to rural primary care and using MEDLINE, created a measure of rurally-relevant scholarly output for each school. Multivariate analyses yielded factors associated with rural primary care physician output.

**Key Findings:** Production of rural primary care physicians ranged from 0.1% to 11.4% of schools' total graduates. In bivariate analyses, the top 20% of producers of rural primary care physicians were significantly more likely than other schools to be osteopathic, public, in a rural location, and with a stated rural mission, rural faculty titles, rural leadership positions, rural clinical experiences, rural programs, lower levels of NIH funding, and higher rurally relevant scholarly productivity. Multivariate analyses found four significant predictors of producing rural primary care physicians: schools that were (1) osteopathic, (2) public, (3) rural, and (4) highly productive in scholarly output on relevant rural topics were more likely to be in the top 20% of rural primary care producers. This model correctly classified 84.8% of medical schools.

**Conclusion:** Our findings suggest several potential investments that different types of medical schools can tailor to their unique circumstances to educate a primary care workforce for rural communities.

*Poster Station #16*

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# Cannabis Therapy Knowledge Study: Toward Establishing a Pedagogical Tool

## PRESENTING AUTHOR:

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## ABSTRACT:

The legalization of recreational cannabis remains a popular topic within Canada. Although changes to the rates of recreational and medical cannabis use post-legalization are yet to be determined, physicians are key stakeholders in conversation surrounding cannabis. It is a critical time for Canadian physicians to increase awareness on the medical indications and health implications associated with use of cannabis. Several independent studies have been conducted to assess physician knowledge and comfort while engaging in conversations regarding cannabis. However, it is extremely difficult to draw conclusions from these studies as they all vary in sample size, location and demographics of physicians. The aim of this study is to comprehensively analyze common themes within four independent studies focused on physician knowledge of cannabis. Common themes include i) knowledge of the mechanism of the endocannabinoid system, ii) physician opinion on the current training on cannabis, iii) knowledge of the potential risks associated with cannabis use iv) comfort level creating an effective treatment plan using cannabis and v) future training needs and preferred formats of education. The results of this study reveal that physician opinion on the medical indications of cannabis is highly divided. In addition, physician knowledge on the potential risks of cannabis and comfort level creating an effective treatment plan is limited. Physicians support initiating change to all levels of medical education including, undergraduate curricula, residency curricula and ongoing education to clinicians, to add training about medical cannabis. The preferred formats of education include webinars, in person training, and peer reviewed literature. Based on the results of this study, a consistent curriculum must be developed and delivered to current and future physicians within Canada. Regardless of whether independent physicians support the use of medical cannabis, this curriculum will allow movement towards a standard of care as it relates to cannabis within Canada.

*Poster Station #18*

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# First Nation Models of Wellbeing: Validating the First Nation Mental Health Framework

## PRESENTING AUTHOR:

Stephanie Sinclair

## AUTHOR(S)

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## ABSTRACT

Introduction: Manitoba's First Nations have holistic views of health and wellness and many models of wellness have been developed.

Approach: The iPHIT program of research is a collaboration between the University of Manitoba and Nanaadawewigamig, the First Nation Health and Social Secretariat of Manitoba and eight (8) First Nation communities in Manitoba. We set out to highlight or support First Nations to develop innovation in primary health care, however, many First Nations identified mental wellness as a priority area.

Objective: This presentation will examine two models for mental wellness that were developed from participant interviews

Results: In partnership with the 8 FN communities, we developed the Looking Back Moving Forward Wellness Framework which has been validated through community workshops in the 8 FN communities. The model bares a resemblance to other models of wellness but also has a unique perspective on connectedness.

Conclusion: This presentation will review the connection between the two models of wellness, one developed on a national scale and the First Nation Mental Health Framework. Specifically, how the iPHIT "Looking Back, Moving Forward Model" could work in collaboration with the First Nation Mental Wellness Continuum Framework.

*Poster Station #20*

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