



# 2018 NORTHERN BC RESEARCH AND QUALITY CONFERENCE

*Engaging Partners in Health Care Improvement*

November 6 – 8, 2018

Prince George, BC

## CONFERENCE PROGRAM



*Prince George Civic Centre*



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# Show Your Badge



Tourism Prince George is excited to announce the Show Your Badge program. This program allows delegates of participating events in Prince George to receive discounts at businesses around our community on the conference dates.

<https://tourismpg.com/showyourbadge>

Includes the following businesses: OVERhang Education Centre, Alison's Embroidery & Gifts, Booster Juice – Parkwood Location, Oakroom Grill, White Goose Bistro, Nancy O's, Betulla Burning, Players Bench Sports & Evolve Bike, Grand Trunk Tavern, Cimo Mediterranean Grill, Cornerstone Kitchen and Lounge, The Black Clover, The Twisted Cork, Col Juicery, Northern Sport Centre

# Physician Accreditation Statement

The University of British Columbia Division of Continuing Professional Development (UBC CPD) is fully accredited by the Committee on Accreditation of Continuing Medical Education (CACME) to provide study credits for continuing medical education for physicians. 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 has been approved by UBC CPD for up to **14.5 MOC Section 1** Group Learning credits. This program meets the certification criteria of the College of Family Physicians of Canada and has been certified by UBC CPD for up to **14.5 Mainpro+** Group Learning credits. Each physician should claim only those credits he/she actually spent in the activity.

**CFPC Session ID#: 188679 – 001**

Accredited by UBC CPD



CONTINUING PROFESSIONAL DEVELOPMENT  
FACULTY OF MEDICINE

# Conference Wi-Fi

**Network:** Northern Health  
**Password:** NH2018RQ



# Conference Hosts



## Northern Health

Northern Health is responsible for the delivery of health care across Northern British Columbia, including acute care, mental health, public health, addictions, and home and community care. Their region covers almost two-thirds of B.C.'s landscape, which is home to over 300,000 people.



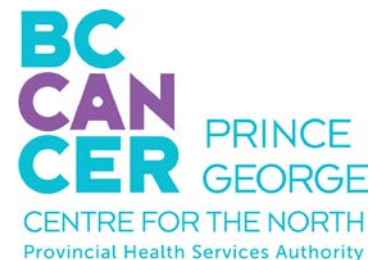
## Innovation and Development Commons

The Innovation and Development Commons (IDC) is a partnership between Northern Health and the University of Northern British Columbia (UNBC). It aims to facilitate education, research and innovation in the North, ultimately improving the quality of life and health outcomes for Northerners.



## Health Research Institute

The mission of the Health Research Institute (HRI) is to facilitate the creation and translation of knowledge that will enhance the health and well-being of individuals, families, and communities. The HRI supports UNBC's health researchers to find ways of enhancing the creation of knowledge, the development of research capacity and the exchange of knowledge with research partners: communities, community organizations, practitioners, and most notably, Northern Health.



## BC Cancer Centre for the North

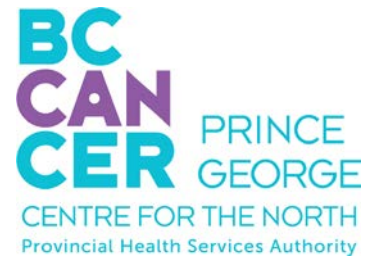
BC Cancer – Prince George (Centre for the North) has been providing cancer care services in partnership with the Northern Health Authority since November 1, 2012. Combining the closer to home strategy with the "Northern Way of Caring" helps all members of the team work towards the goal of patient centred care when providing and transitioning service.



## Physician Quality Improvement

The Physician Quality Improvement (PQI) Initiative provides training and support to physicians, through technical resources and expertise, to lead quality improvement (QI) projects, which build QI capacity. This investment increases physician involvement in QI and enhances the delivery of quality patient care. PQI also addresses gaps in quality structures relating to physician participation in QI activities and ensures those physicians have adequate dedicated technical supports (i.e. data analysts, quality improvement advisors, etc.). Initiatives are aligned with the health authority's overall quality strategy, but are distinct from its Quality Assurance responsibility and mandate.

# Conference Sponsors



School of Health Sciences  
School of Nursing  
Office of Research  
Department of Psychology  
Northern Medical Program  
School of Social Work



The 2018 Northern BC Research and Quality Conference would not have been possible without the support and contribution of a number of organizations, universities, individuals and community members. We extend a warm thank you to all for their many hours dedicated to planning this successful event.



*Poster Presentation*

# Acknowledgments and Appreciation

**This conference is taking place on the Traditional Territory of the Lheidli T'enneh.  
We welcome all the Elders in attendance.**

## **Advisory Committee**

For their support and partnership

Dr. Travis Holyk, David McAtackeny, Candice Manahan, Tracey Day  
Dr. Sandra Allison, Deb Woods, Dr. Margo Greenwood, Dr. Anurag Singh,  
Liana Doherty, Bonnie Urquhart, Beth Ann Derksen, Dr. Denise Jaworsky,  
Dr. Raina Fumerton, Shawn Smith, Dr. Ray Markham, Dr. Shannon Freeman,  
Dr. David Snadden, Daman Kandola, Dr. Sheona Mitchell-Foster, Dr. Sean Maurice,  
Rob Goffinet, Sally Rosevear, Erin Anderlini, Shobha Sharma, Dr. Marius Pienaar  
Dr. Laura Arbour, Debbie Sullivan, Gayle Scarrow, Genevieve Creighton

## **Workshop Presenters**

Dr. Travis Holyk, Marlaena Mann, Barby Ann Skaling,  
Christina Southey, Katherine Stevenson,  
Mary Smilie, Kyla Avis,  
Dr. Indrani Margolin, Claire Johnson, Dr. Sarah De Leeuw

## **Keynote Speaker**

Dr. Shimi Kang

## **Plenary Speaker**

Francisco Ibanez-Carrasco, PhD

## **Panel Session**

Dr. Malgorzata Kaminska, Robin Roots, Milly Saville, Dr. Anurag Singh

## **Adjudication Committee**

Abstract Reviewers

Shawn Smith, Gayle Scarrow, Dr. Sandra Allison,  
Dr. Denise Jaworsky, Dr. Muhammad Jamil Akhtar,  
Daman Kandola, Leana Garraway, Janna Olynick,  
Kerensa Medhurst, Erica Koopmans, Julie Creaser,  
Tammy Hoefler, Tanis Hampe, Tamara Reichert, Trina Fyfe

## **Conference Planning Committee**

Tanis Hampe, Tammy Hoefler, Rachael Wells, Linda Axen,  
Kerensa Medhurst, Sam Milligan, Stacey Patchett, Janet Rockwell,  
Diana Tecson, Tamara Reichert, Jayleen Emery, Kim Royle

## **Conference Photographer**

Bree Orser

# Program at a Glance

## Conference Objectives:

- Discuss, celebrate and review research, quality improvement, evaluation, and implementation of evidence in a northern and rural context;
- Review the development of research, quality improvement, evaluation, and evidence-informed practice skills; and
- Determine new ideas and encourage diverse partnerships and broaden the involvement of different stakeholders invested in the health of northerners.

<b>Tuesday, November 6, 2018</b>		
7:30am – 4:30pm 7:30am – 8:15am	Conference Registration Continental Breakfast	<i>Pre-Function Area Upstairs, foyer</i>
8:30am – 4:30pm	<b>FULL DAY WORKSHOPS</b> A) Potlaches & Research: Carrier Sekani Family Services Approach to Embracing Culturally Informed Practice B) Measurement for Quality Improvement C) Improvement Basics: When you just can't love your work unless you learn how to improve it D) Doing and Using the Arts in Health Research	<i>Room 208</i>  <i>Room 204-205</i> <i>Room 201-202</i>  <i>Art Gallery</i>
Break Times	<b>Lunch</b> (12:00pm-1:00pm)  <b>Refreshment breaks:</b> <b>10am-11am and 2:30pm-3:30pm</b> <i>(workshop facilitators will determine exact break time)</i>	<i>Upstairs, foyer</i>
4:30pm – 6:30pm	<b>PRE-CONFERENCE RECEPTION</b> A Shared Vision of Health in the North (PechaKucha Presentation)  <b>Presenters:</b> Shobha Sharma Dr. Andrew Gray Edwina Nearhood Dr. Geoff Payne Jenna Smith-Forrester Dr. Terri Aldred  <i>Appetizers and cash bar available</i>	<i>Room 101</i>



# Program at a Glance

Wednesday, November 7, 2018		
7:30am – 10:00am 7:30am – 8:15am	Conference Registration Breakfast Buffet	Pre-Function Area Room 101
8:30am – 8:45am	<b>TRADITIONAL WELCOME</b> Lheidli T'enneh First Nation	Room 101
8:45am – 9:00am	<b>OPENINGS AND GREETINGS</b> <i>Dr. Geoff Payne, Vice President Research and Graduate Programs, UNBC</i> <i>Cathy Ulrich, Chief Executive Officer, Northern Health</i>	Room 101
9:00am – 10:00am	<b>KEYNOTE SPEAKER</b> <b>Dr. Shimi Kang</b> , <i>Navigating Modern Day Realities: Stress and Adaptability</i> <i>Introduction by Penny Anguish, Chief Operating Officer, Northern Interior, Northern Health</i>	Room 101
10:00am – 10:15am	Refreshment Break, Poster Viewing and Transition to Concurrent Sessions	Room 102
10:15am – 11:55am	<b>CONCURRENT SESSIONS</b> Session A: Collaborations and engagement in health Session B: Health promotion and management Session C: Why all the data and measurement?	Room 101 Room 205-206 Room 208
12:00pm – 12:45pm	<b>Lunch</b>	Room 101
12:45pm – 1:00pm	<b>ANNOUNCEMENT</b> , Fraser Bell and Dr. Geoff Payne	Room 101
1:00pm – 1:45pm	<b>PANEL SESSION</b> <b>Dr. Malgorzata Kaminska, Robin Roots, Milly Saville and Dr. Anurag Singh, <i>Exercise in Complex Chronic Disease</i></b> <i>Introduction by Dr. Martha MacLeod, Professor, School of Nursing and School of Health Sciences; Northern Health and UNBC Knowledge Mobilization Research Chair; Co-Lead, UNBC Health Research Institute</i>	Room 101
1:45pm – 2:00pm	Transition to Concurrent Sessions	
2:00pm – 3:15pm	<b>CONCURRENT SESSIONS</b> Session D: Health care access, flow and capacity management Session E: Working together for person, family and community centred care Session F: Human resources and careers in health care	Room 101 Room 205-206 Room 208
3:15pm – 3:30pm	Refreshment Break	
3:30pm – 4:45pm	<b>CONCURRENT SESSIONS</b> Session G: Treatment and management: Learning from analysis, evaluation and teams Session H: Using gardening and horticultural therapy in long term care: a patient-oriented research example Session I: Engaging audiences using online education and training	Room 101 Room 205-206 Room 208

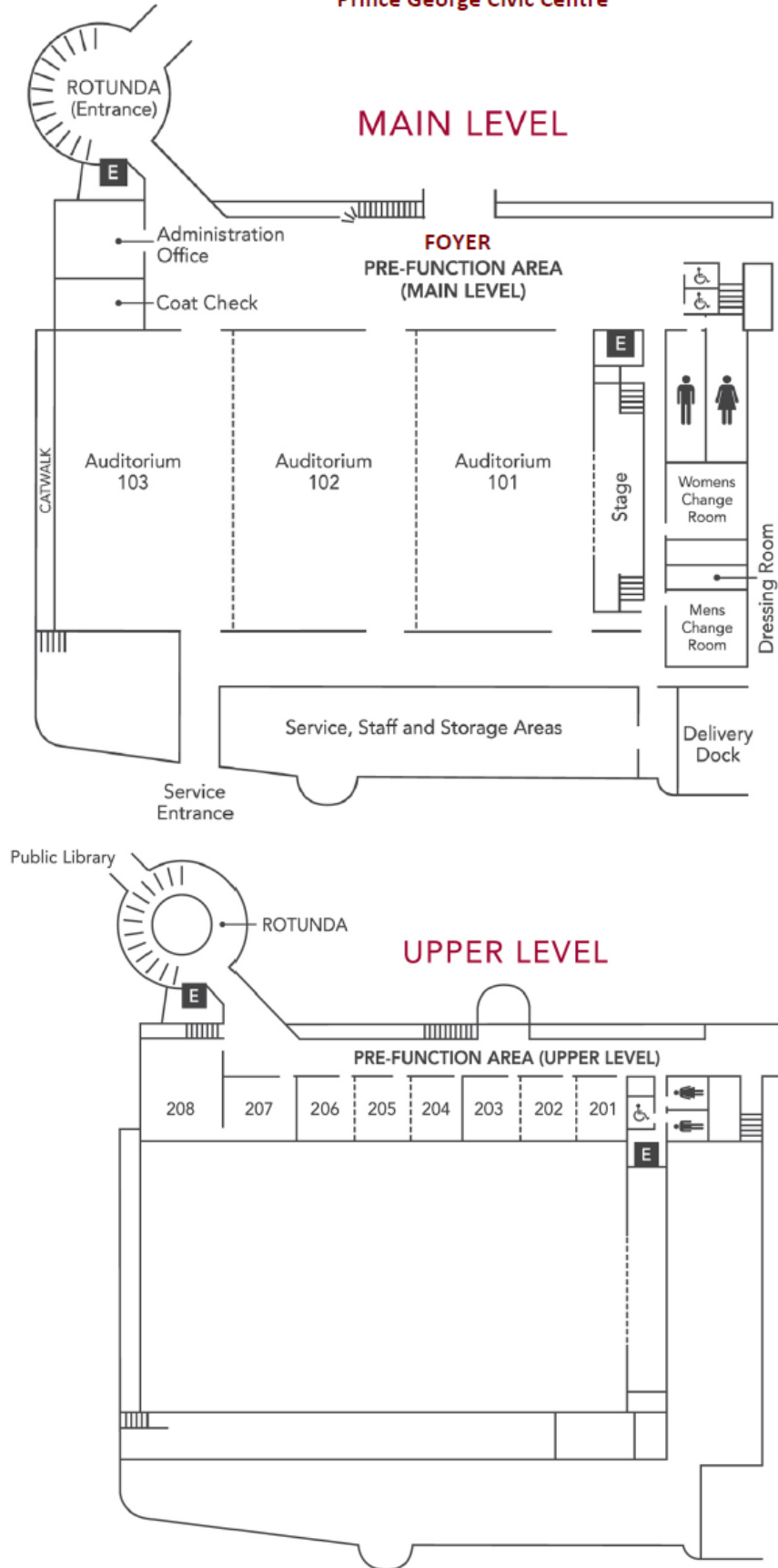
# Program at a Glance

4:45pm – 4:50pm	Transition to Rapid Fire	
4:55pm – 5:15pm	<b>RAPID FIRE POSTER PRESENTATIONS</b>	Room 101
5:15pm – 6:30pm	<b>Reception &amp; Poster Viewing</b> <i>Appetizers and Cash Bar available</i>	Room 101-102

<b>Thursday, November 8, 2018</b>		
7:30am – 10:00am 7:30am – 8:15am	Conference Registration Breakfast on the Go	Pre-Function Area Room 101
8:30am – 8:45am	<b>WELCOME &amp; HOUSEKEEPING</b> <i>Marlene Apolczer, Quality Improvement Lead, NI Rural</i>	Room 101
8:45am – 9:30am	<b>PLENARY SESSION</b> <b>Francisco Ibanez-Carrasco, PhD, Community Based Research won't liberate you, but will surely make you do things differently!</b> <i>Introduction by Sam Milligan, Integrated Care Coordinator, Carrier Sekani Family Services</i>	Room 101
9:30am – 9:45am	Transition Time – refreshments/snacks available	
9:45am – 11:30am	<b>CONCURRENT SESSIONS</b> Session A: Lessons in improvement and implementation Session B: Advancing primary and community care Session C: Including the patient and family voice	Room 101 Room 205-206 Room 208
11:30am – 11:45am	Transition time	
11:45am – 12:00pm	<b>POSTER AWARD PRESENTATIONS</b> <i>Presented by Dr. Martha MacLeod, Professor, School of Nursing and School of Health Sciences; Northern Health and UNBC Knowledge Mobilization Research Chair; Co-Lead, UNBC Health Research Institute</i>	Room 101
12:00pm – 12:15pm	<b>CLOSING REMARKS</b> <i>Fraser Bell, Vice President Planning, Quality and Information Management, Northern Health</i> <i>Dr. Henry G. Harder, UNBC Professor, School of Health Sciences; Dr. Donald B. Rix BC Leadership Chair; Aboriginal Environmental Health</i>	Room 101

# Venue Map

## Prince George Civic Centre



# Conference Emcees

## Wednesday, November 7, 2018



**Dr. Geoff Payne** is the Vice President of Research and Graduate Programs at UNBC. Dr. Payne is a Professor in the field of vascular physiology at the University of Northern BC (UNBC). He came to UNBC in June 2004 as founding faculty of the medical school following a post-doctoral fellowship at Yale University in the Department of Cellular and Molecular Physiology and John B. Pierce Laboratory. Dr. Payne holds a Ph.D. from Memorial University of Newfoundland in the field of cardiovascular and renal physiology. In addition to his biomedical research, he has an active research program in medical education in which his interests include curriculum, assessment and admissions.

## Thursday, November 8, 2018



**Marlene Apolczer**, a lifetime northern resident and long-time Northern Health employee, Marlene has supported staff and services as the Quality Improvement Lead for the Northern Interior HSDA since the spring of 2014. This position allows Marlene to bring together her genuine interest for supporting staff and teams along with her commitment to improving services for the people served by Northern Health. Marlene is passionate about improving the health care system and including the voice of patients and families in our work.

# Workshops

## Potlaches & Research: Carrier Sekani Family Services Approach to Embracing Culturally Informed Practice



**Dr. Travis Holyk** is the Executive Director, Research, Primary Care and Strategic Services at Carrier Sekani Family Services and Adjunct Professor at the University of Northern British Columbia. Travis is a leader in developing and administering innovative health and social programs that continue to have a positive and lasting impact in First Nations communities. He has been working with rural and remote First Nations for close to twenty years. Travis holds a Doctorate in Education from Simon Fraser University and through his diverse education and training, he is able to merge health administration with knowledge acquisition and translation. In addition to administering physician and nursing services provided to 11 First Nations spanning a geography of 76,000 km<sup>2</sup> in North Central BC, his current portfolios also include research, program development, and quality assurance, thereby ensuring that all programs and services meet their intended outcomes. He guides services towards an interdisciplinary approach to wellness, using varied funding arrangements and technology to address complex health needs of rural and remote populations. Travis is proud to have developed the Carrier Sekani Research program and penned their ethics policies. This work has shaped the organization as a leader in community based research, resulting in numerous research partnerships and initiatives in various areas of health and social issues.



**Marlaena Mann** works at Carrier Sekani Family Services as the Director of Communications and Projects. She has over 25 years of experience working in BC's central interior to empower individuals and families to live healthy and fulfilling lives on their own terms. Her educational background includes social work, life coaching and a masters degree in educational leadership from Simon Fraser University. Marlaena's passion for education, and social justice are a great fit for her role. She works with knowledge holders to develop educational resources and training to enhance cultural competency for professionals working with Indigenous peoples.



**Barby Ann Skaling** is of the Gitksan - Wet'suwet'en Nation (Moricetown, BC) and the Luksilyu Clan (Small Frog). Her traditional name is "Yahalii". Barby is a Licensed Practical Nurse and has been an Education Program Coordinator with the Healing Our Spirit program for 13 years. Barby's vast experience in the health field includes several major hospitals; Vancouver General Hospital, Smithers and private nursing. Barby feels very blessed to have had the opportunity to work with CSFS's 11 member Nations as the Community Health Manager, and now as the Cultural Program Coordinator. Barby collaboratively works with CSFS teams to integrate Carrier cultural practices with western wellness models. She has spent many years of her career as an educator, providing preventative programming to people at risk of contracting or living with HIV. She also teaches violence prevention in organizational, community, and family contexts and is committed to preventing lateral violence and violence against women and girls. Barby is a strong supporter and advocate of holistic healing methods using indigenous values and belief systems. She is committed to community capacity building for the positive growth and autonomy of indigenous peoples.

### Learning Objectives:

- Examine how research can be a tool for healing and empowerment
- Recognize current issues for First Nations by looking at the past leading up to present day
- Describe the realities today for First Nations living in rural and urban settings
- Identify ways to develop trusting and meaningful relationships with First People

# Workshops

## Measurement for Improvement



**Christina Southey** has been working in health care improvement for the past 10 years. She has served as an improvement advisor and faculty for multiple organizations in Canada, the United States and internationally. Christina has contributed to projects aimed at improving chronic disease care, access, patient experience, and mental health and substance use care in multiple locations. She has spent the majority of her career working on projects in the primary and community care realm, with a passion for how to engage staff, patients, and the community in improvement. She has applied her quality improvement expertise in multiple small and large group education sessions, working with diverse improvement learners from government to front line staff and patients. Christina holds a Masters Degree in Community Health and Epidemiology.



**Katherine Stevenson** has worked in health system improvement since 2004, when she began working for Saskatchewan's Health Quality Council (HQC). She has held a variety of positions including, senior quality improvement consultant and program director. She also had the opportunity to lead the Quality as a Business Strategy, Releasing Time to Care and Academic Initiatives projects, as well as the development of HQC's whole system transformation strategy. She is a Clinical Assistant Professor at the University of Saskatchewan's School of Physical Therapy and an Adjunct Lecturer at The Jönköping Academy for Improvement of Health and Welfare in Sweden, where she is completing a PhD in Quality Improvement and Leadership. More recently, she joined the coaching and teaching team at the Microsystem Academy with the Dartmouth Institute for Health Policy and Clinical Practice.

### Learning Objectives:

- Demonstrate an understanding of the relationship between measurement for research, accountability, and quality improvement
- Reflect on different measurement frameworks
- Prepare conceptual and operational definitions for measures of quality
- Identify and discuss different source and methods to obtain data
- Apply and discuss visual displays of data for exploring variation, including run charts

# Workshops

## Improvement Basics: When you just can't love your work unless you learn how to improve it



**Mary Smillie** brings intellect, passion and demonstrated expertise to her work as Improvement Advisor. Drawing from more than 25 years of experience in health and health care services, Mary combines her education and experience in direct nursing care, a masters in Community Health Sciences with her experience in community development and community mobilization and health services research. She nurtures and supports health system redesign to achieve significant measurable improvement in population health outcomes that result in exceptional patient care experiences. Mary graduated the first wave of The Improvement Advisor Program offered by Institute for Healthcare Improvement (IHI) in 2005.



**Kyla Avis** is a registered nurse who gained her acute care experience in medicine and emergency settings before obtaining her Master's in Community Health and Epidemiology from the University of Saskatchewan. She has spent time in both South Africa and Mozambique working for community-based projects focused on HIV/AIDS treatment/prevention and curriculum development for health care workers. In 2008 Kyla focused her career on quality improvement, which continues to be her passion to this day. As Program Director with the Health Quality Council, Kyla led the provincial rollout of the Releasing Time to Care Project in over 30 acute care units across the province from 2009-2013. More recently, she has been a consultant on the Emergency Department Waits and Patient Flow Initiative in Saskatchewan. Kyla's unique perspective and wide-ranging experience helps her connect with health system leaders, at any level, in any setting, to spark their own passion for QI.

**Description:** Participants will understand the fundamentals of quality improvement methods sufficient to take home a 'road map' for measurably making care or services better for patients and families.

### Learning Objectives:

1. Examine the large tool box of QI methods and how they help teams discover the best approach to change for unique environments.
2. Understand change and improvement involves both technical work (subject matter) and social work (human factors) and how QI methods surface these elements for teams.
3. Demonstrate how to use a few essential QI tools and apply them to improvement opportunities identified by participants.
4. Describe 'how to' approach improving an aspect of their care or services.

# Workshops

## Doing and Using the Arts in Health Research



**Dr. Indrani Margolin** is part of the Leadership Council of Northern FIRE (Feminist Institute for Research & Evaluation) and has a research program of girls' and womens' wellness, arts-based research and holistic practices that nurture body, mind, and spirit. A current project includes Proclamation Meditation as bodymind medicine for social work students. She teaches practicum and counselling courses, including spirituality and expressive arts therapy. She is an Associate Professor with the UNBC School of Social Work.



**Clarie Johnson** began her career in social work began 25 years ago as counsellor at the Prince George Sexual Assault Centre (aka SOS). As the Children's Program Coordinator, she provided trauma counselling and advocacy support services for children and their families. Her work experience was a major influence for her thesis research, and witnessing the therapeutic use of the creative arts lead her to using an arts based research methodology. Herself a graduate of the CNC Social Service Worker Diploma program, she is honoured to come full circle to return to the program as an instructor with the program.



**Dr. Sarah De Leeuw** is an award winning researcher and creative writer whose work focuses broadly on marginalized peoples and geographies, Sarah de Leeuw grew up and has spent most of her life in Northern British Columbia, including Haida Gwaii and Terrace. She is the Research Director of the Health Arts Research Centre and teaches in the areas of Indigenous peoples well-being and health humanities.

**Description:** Arts-informed methods can enhance research processes in several ways. Arts-informed methods can empower participants to recognize the important knowledge they bring to the research process: participants become co-creators in developing the research knowledge. Arts-informed methods also assist with fostering enjoyment of research. They can increase the empathy of researchers towards complex life and health realities of participants and can level power imbalance between researchers and participants. Arts facilitate making meaning of emotion and experience so that tacit-felt knowledge becomes concretized. An art product can be reflected on further through discussion. Arts research brings richer nuanced responses that traditional qualitative methods tend to miss. While developed within a qualitative framework, arts research is well-suited to both qualitative and mixed method health research.

This one-day experiential workshop will guide participants toward a deeper understanding and appreciation of the philosophical tenants of artistic inquiry. Participants will also learn how the arts may inform health system changes. Workshop participants will be led through examples of arts research and engage with arts-based practices. We will then engage in participant-driven conversations about the applicability of arts to health policy and health project improvement.

### Learning Objectives:

- Acquire a connection to our own creativity and acquire a sensitivity toward the full spectrum of arts-based practices
- Apply arts-based research in health and healthcare inquiry and work
- Demonstrate an understanding of experiences and making meaning of arts-based research practices



# PechaKucha Presentations



**Shobha Sharma** completed an undergraduate degree from the University of British Columbia (UBC) in 2003, and a Masters degree in Indigenous Governance from the Faculty of Human and Social Development at the University of Victoria in 2007. Shobha is the Executive Director of *Central Interior Native Health Society*, an Indigenous organization committed to serving as a leader in delivering equity oriented health care.

With over 10 years of experience in non-profit organizations, international development and indigenous self-determination, Shobha has dedicated her professional career to community development both nationally and globally. Her passion for human rights has led her to not only engage in indigenous dialogues responding to globalization and governance in North America, but to plan and implement international programs around capacity building, youth leadership, cross-cultural understanding, resource distribution/infrastructural development, and the social and economic empowerment of women.



**Dr. Andrew Gray** is a Medical Health Officer with Northern Health, based in Prince George. He attended medical school at the University of British Columbia, followed by specialty training in Public Health and Preventive Medicine and a Master of Science degree in Epidemiology at McGill University. Since 2016, his work has focused primarily on communicable disease control and on the prevention of substance-related harms, including helping to lead Northern Health's response to the opioid overdose emergency. Dr. Gray is a Fellow of the Royal College of Physicians of Canada and a Clinical Assistant Professor at the School of Population and Public Health at UBC.

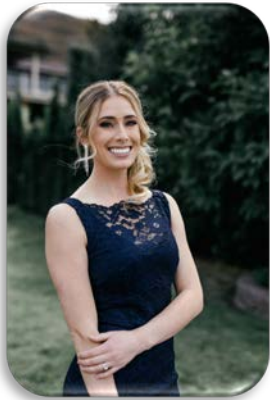


**Edwina Nearhood** is a Patient Voices Network volunteer from Fort St John who is very active in patient engagement on local, regional, provincial and national level. She is currently very active and involved in several committees and projects including the Physician Quality Improvement Specialist Services Committee, Canadian Foundation for Healthcare Improvement RACE NORTH project partner, Regional Ambassador for the What Matters to You campaign, and Community Action Team patient partner in the Northeast. Edwina is a welcomed participant in many projects involved in quality improvement bringing her patient lens with over 30 years of experience managing congenital heart disease.

# PechaKucha Presentations



**Dr. Geoff Payne** is the Vice President of Research and Graduate Programs at UNBC. Dr. Payne is a Professor in the field of vascular physiology at the University of Northern BC (UNBC). He came to UNBC in June 2004 as founding faculty of the medical school following a post-doctoral fellowship at Yale University in the Department of Cellular and Molecular Physiology and John B. Pierce Laboratory. Dr. Payne holds a Ph.D. from Memorial University of Newfoundland in the field of cardiovascular and renal physiology. In addition to his biomedical research, he has an active research program in medical education in which his interests include curriculum, assessment and admissions.



**Jenna Smith-Forrester** is in her 4<sup>th</sup> Year of the Northern Medical Program with a demonstrated passion for Quality Improvement and Patient Safety advocacy and education. She has worked with the Institute for Healthcare Improvement (IHI) since her introduction to the organization in 2010; serving as UBC Chapter President from May 2015- September 2017. Over the same time frame, Jenna led the integration of IHI Open School Resources in the UBC Medical Program by creating a 30 hour FLEX course that incorporates online training modules, with small group discussion and written reflection. She has worked diligently to expand the provincial Quality Improvement network at both student and professional levels including the creation of a local IHI Open School Chapter at UNBC, which partnered with Northern Health to create multidisciplinary QI training opportunities for students in the North.



**Dr. Terri Aldred** is Carrier from the Tl'Aztl'En Nation located north of Fort St. James. Dr. Aldred has a Bachelor of Health Science Degree and a Doctor of Medicine Degree from the University of Alberta. In 2013, she completed her residency in the UBC Indigenous Family Medicine Program in Victoria. At present, Dr. Aldred is the Site Director for the Indigenous Family Medicine Program, Family Physician for Carrier Sekani Family Services, Medical Director for the Prince George Foundry Clinic, and the Indigenous Lead for the RCCBC. She is passionate about Indigenous health, physician well-being, and medical education. *Sna Chaylia.*

# Keynote Speaker



**Dr. Shimi Kang** is an Award-Winning Harvard-Trained Physician, Bestselling Author, Global Social Entrepreneur. An award-winning medical doctor, researcher, and lecturer on human motivation, Dr. Shimi Kang offers the keys people of all ages need to succeed in the workplace, the classroom, and at home. With over fifteen years of clinical experience and extensive research in the science that lies behind motivation and wellness, Dr. Kang shows people how to cultivate the key 21st century skills they need to flourish both professionally and personally.

Dr. Kang is the former Medical Director of Child and Youth Mental Health for Vancouver and a Clinical Associate Professor at the University of British Columbia. She is the author of *The Self-Motivated Kid* and *The Dolphin Parent: A Guide to Raising Healthy, Happy, and Self-Motivated Kids*. *The Dolphin Parent* was critically acclaimed, and became a #1 Canadian Bestseller which was released in Germany, Russia, and China, and won the 2015 US News International Book Award.

Dr. Kang uses irrefutable science, unforgettable true stories, and her own life experiences to show how to develop self-motivation, adaptability, and the key 21st century skills of communication, collaboration, contribution, creativity, and critical thinking.

In the media, Dr. Kang is a writer with articles featured in *The Huffington Post*, *Psychology Today*, *South China Morning Post*, and *Time* magazine. She is a recognized media expert for discussing both common and complex conditions such as health, lifestyle, motivation, leadership, workplace culture, and 21st century skills. She has been invited to contribute to major news outlets such as NPR, CBC National News and Radio, CTV National, Al Jazeera, *Der Spiegel*, and *Washington Post*.

Dr. Kang is an entertaining and experienced speaker. She has presented at events ranging from the world's largest conferences to customized workshops for small groups. Dr. Kang has shared the stage with cutting edge scientists, movie stars, professional athletes, national politicians, CEOs, and even a Miss Universe! At her TEDx presentation, Dr. Kang skillfully combined her knowledge of motivation into her talk for a unique "therapeutic presentation" that led to a standing ovation.

Dr. Kang is seriously concerned about the direction of humanity and has made promoting mental health and wellness a priority. She is Global Presence Ambassador – a humanitarian organization that works to promote life skills for youth around the world. She has recently launched *DolphinKIDS: Future-Ready Leaders*, her own Innovation, Leadership, and Wellness Programs for youth in Canada, US, and India.

Dr. Kang was honored with the Diamond Jubilee Medal in 2012 for her years of outstanding community service. She has received five national awards in the field of addictions and mental health including the American Academy of Addiction Psychiatry Research Award and was the 2016 recipient of the YWCA Woman of Distinction Award in Health and Wellness for Vancouver.

## ***Navigating Modern Day Realities: Stress and Adaptability***

We are living in the most rapidly changing, ultra-competitive, socially connected, and fast paced world we have ever known. Anxiety, depression, and chronic lifestyle related diseases are on the rise and technology overuse is becoming the issue of our time. However, we are also living in moment of great positive change and age-old systems are being disrupted, changed, & recreated. The 21st century is the "Conceptual Era" — the era of ideas, innovation, & execution through social leadership. However, according to the World Health Organization, stress is our #1 health epidemic which also directly impedes the generation of ideas, collaboration, and achievement. Each day, we face the challenge of navigating these two opposing realities. How can we best develop the key future-ready skills required for success in our stressful, complex, and ever-changing 21<sup>st</sup> century world?

Dr. Kang illuminates the latest research-based methods for developing the new future-ready intelligence of Consciousness Quotient (CQ). CQ encompasses communication, collaboration, critical thinking, contribution, and creativity.

1. Identify the opposing realities of modern-day lifestyle pressures and the cultivation of future-ready skills.
2. Describe the most effective mindset and life skills that lead to self-motivation, adaptability, and CQ.
3. Recognize effective activities that lead to future-ready innovation, leadership, and wellness.

# Panel Session

## Exercise in Complex Chronic Disease



**Dr. Malgorzata Kaminska** is a family physician and full-time faculty with the Northern Medical Program at UNBC. Her days consist of teaching medical students and residents. She also practices clinical medicine in Prince George. Mal is currently conducting experimental research for her PhD in medical education, but is equally excited about research relating to improvement of health in rural settings.



**Robin Roots** is a Physiotherapist and Senior Instructor in the UBC Department of Physical Therapy and Coordinator of Clinical Education for the Northern and Rural Cohort. She lives in Prince George where she has a cross appointment at the University of Northern BC, teaching in the Northern Medical Program, Nursing program and providing clinical outreach opportunities for students in Physical Therapy and Occupational Therapy. Her interest and research focuses on rehabilitation practices and service delivery in rural regions, Indigenous health, continuing professional development and interprofessional education and practice.



**Dr. Anurag Singh** is a staff nephrologist at UHNBC and Medical Lead for NH Kidney Care program. Dr. Singh is involved in numerous quality improvement and research initiatives. He is passionate about improving lives of people living with chronic disease in the North.



**Milly Saville** had open heart surgery at Vancouver General Hospital in September 2015 at the age of 64. She returned to Prince George two weeks later and was monitored by the NORTH Clinic for 3 months, during which time she was referred to the Cardiac Rehabilitation Program at the YMCA which began early 2016. After the 10 week program, Milly became a member of the YMCA and continued with a maintenance program, availing herself of the occasional supervision and input of the Cardiac Rehab team. She is still active at the YMCA and serves as one of the volunteer group leaders for the Cardiac Support Group which meets monthly under the supervision of the NORTH clinic.

It is well established that physical exercise plays a positive role in improving lives of individuals living with chronic diseases in many ways. Yet, translating this knowledge and systematically incorporating physical exercise at a healthcare system level, particularly in northern and rural communities, has been challenging. Our objective is to draw upon the experiences of those living with chronic diseases and have participated in exercise programs to understand key factors in successful implementation and sustainability of such interventions. This session will showcase how diverse partnerships and collaborations between academic institutions, front line workers, leadership, and patient partners can foster innovative research, QI methodologies and contribute to the knowledge mobilization and implementation of physical activity interventions for those with chronic disease living in northern and rural areas.

The panellists will discuss findings from our collaborative research/QI projects:

- Feasibility of incorporating exercise during Hemodialysis
- Community Cardiac Rehabilitation program
- Community Pulmonary Rehabilitation program

Within this context, the expert panel will review key learnings, challenges, and their patient-centered vision for the future of exercise as an integral part of chronic disease management in northern and rural communities.

# Plenary Speaker



**Francisco Ibanez-Carrasco**, PhD, Senior Research Associate, Li Ka Shing Knowledge Institute, Centre for Urban Health Solutions, St. Michael's Hospital, Toronto

Francisco Ibanez-Carrasco's mission is to inspire and connect. Francisco is a Senior Research Associate at the Centre for Urban Health Solutions, St Michael's Hospital and currently leads the CIHR funded HIV Stigma Index in Canada. Francisco has lived with HIV since 1986 and has worked in the HIV movement since 1989. His collaborative educational e-learning can be found at [www.uwow.ca](http://www.uwow.ca). Francisco's research focuses on HIV and rehabilitation, aging, and sexual health; also HIV stigma and the patient-provider relationship. He works out and writes in his spare time, most recently, his memoir "Giving it Raw: Nearly 30 Years with AIDS". In 2017, he was awarded the Canadian Association for HIV Research Red Ribbon Award.

**Community Based Research won't liberate you, but will surely make you do things differently!**

**Learning Objectives:**

- Analyze the basic elements of the community based research philosophy applied to health research including program science (intervention, implementation, evaluation);
- Analyze a five pillar framework to sustain the engagement of patients in research; and
- Recognize the abundance and limits of telling the patient's story—autopathography—and the place it occupies in all aspects of research and in the health care.

# Poster Competition

The Northern BC Research and Quality Conference will be featuring a Poster Competition. Students that have designated their poster for consideration in the competition will be judged by voting by your peers as well as a judging panel for Quality, Evidence, Illustrations, and Overall appearance.

There will be one award of \$150 as contributed by the UNBC Health Research Institute that will be given to the best student poster. There will also be a prize for the best research poster and the best quality improvement storyboard. The winners will be announced Thursday, November 8<sup>th</sup> before the end of the Conference.



*2016 Overall Best Poster Prize Winner*

# Concurrent Sessions

Morning - Wednesday, November 7, 2018			
Time	Room 101 – Session A Theme: Collaborations and engagement in health	Room 205-206 – Session B Theme: Health promotion and management	Room 208 – Session C Theme: Why all the data and measurement?
10:15 – 10:40	<b>147-Alina Schroeder</b> Family, Friends and Support Networks of people living with HIV: Insights into knowledge acquisition and personal wellbeing	<b>109-Dr. Rob Olson</b> Stereotactic Ablative Radiotherapy for the Comprehensive Treatment of Oligometastatic Cancers (SABR-COMET): Results of a Randomized Trial	<b>144-Bonnie Urquhart</b> Explore the use of a comprehensive management approach, integrating Business Process Management (BPM), Business Ontology and Business Architecture to improve safety and quality of medication management in a multi-site health care organization.
10:40 – 11:05	<b>119-Dr. Roseann Larstone</b> Tailored strategies to engage vulnerable populations in clinical research in Northern Health	<b>162-Yaser Ahmed</b> Dietary Patterns of Ethnic Populations in Northern British Columbia, Canada: A Principal Component Analysis Study	<b>122-Arlene Crawford &amp; Julianna Ireland</b> Medication Management Accreditation Support Tool: Guiding Staff through the “What”, “Why”, and “How” for Meeting Medication Management Standards
11:05 – 11:30	<b>141-Robin Roots</b> Prince George Cardiac Pulmonary Rehabilitation Program: A partnership between Academia, Northern Health and YMCA results in improved patient outcomes and decreased burden on the health care system	<b>120-Dr. Denise Jaworsky</b> Implementation of routine offering of HIV testing for individuals admitted to acute care at Mills Memorial Hospital	<b>115-Kaili Keough</b> Transforming Primary and Community Care with Data – A Quality Improvement Initiative
11:30 – 11:55	<b>157-Dawn Hemingway</b> Developing an intergenerational cohousing opportunity for UNBC students and older adults in a Long-Term Care and Assisted Living Facility	<b>101-Sudhagar Gangatharam</b> Management of Anconeus syndrome-Case Report	<b>155-Georgia Betkus</b> Developing a Measurement Structure for Telegeriatrics in Northern British Columbia

# Concurrent Sessions

Afternoon – Wednesday, November 7, 2018			
Time	Room 101-Session D Theme: Health care access, flow and capacity management	Room 205-206-Session E Theme: Working together for person, family and community centred care	Room 208 – Session F Theme: Human resources and careers in health care
2:00 – 2:25	116-Dr. Marijo Odulio Surgical Start Time for Gynecological Cases at UHNBC	128-Julia Petrasek MacDonald, Louella Nome Unity, Building Relationships, and Enhancing the Healthcare Experience of Indigenous Peoples in Northern BC	104-Lara Frederick Retention of Rural and Remote Millennial Nurses
2:25 – 2:50	161-Melanie McDonald Enhancing the transitions between Long Term Care (LTC) Facilities and UHNBC for designated LTC residents and for newly designated UHNBC ALCP clients transitioning into a LTC Facility.	110-Kim Dixon Strengthening FAMILIES in Person & Family Centred Care (PFCC)	125-Dr. Sean Maurice The Virtual Healthcare Travelling Roadshow
2:50 – 3:15	131-Faramarz Kashanchi Complex Care Predictive Bed Modeling	154-Si Transken Indigenizing social work ARTivism (circles for healing)	151-Ron J. Davis Engaging rural youth in health care career possibilities: Adventures in health care, “I know what I want to study, but I don’t know what I want to do”
3:15 – 3:30	Refreshment Break & Transition Time		
Time	Room 101-Session G Theme: Treatment and management: Learning from analysis, evaluation and teams	Room 205-206-Session H Theme: Using gardening and horticultural therapy in long term care: a patient-oriented research example	Room 208 – Session I Theme: Engaging audiences using online education and training
3:30 – 3:55	136-Dr. Roel Schlijper Palliative radiotherapy near the end of life for brain metastases from lung-cancer: a population-based analysis.	165-Dr. Shannon Freeman, Rebecca Ferris, Sandra Barnes Co-Creating Meaningful Patient Oriented Participatory Research on Gardening and Horticultural Therapy in a Long-Term Care Facility	145-Barbara McMillan Healthy Aging CORE: Collaborative Online Resources and Education
3:55 – 4:20	158-Katie Bellefeuille Retrospective Evaluation of Clostridium Difficile Infection Risk Factors and Management at a University Teaching Hospital in Northern BC.	165-Dr. Shannon Freeman, Rebecca Ferris, Sandra Barnes (Continued)	159-David Loewen Tensioned interfaces: Unsettling Settler spaces and places in online education and training?



# Concurrent Sessions

<b>4:20 – 4:45</b>	<b>126-Dr. Denise McLeod</b> Group Medical Visits (GMV) for Chronic Obstructive Pulmonary Disease (COPD)	<b>165-Dr. Shannon Freeman, Rebecca Ferris, Sandra Barnes (Continued)</b>	
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<b>Thursday, November 8, 2018</b>			
<b>Time</b>	<b>Room 101-Session A</b> Theme: Lessons in improvement and implementation	<b>Room 205-206-Session B</b> Theme: Advancing primary and community care	<b>Room 208 – Session C</b> Theme: Including the patient and family voice
<b>9:45 – 10:10</b>	<b>113-Shar McCrory &amp; Selina Stoepler</b> Wrinch Memorial Hospital Reorganization - Ripples and Reflections	<b>167-Sara Pyke</b> Public health nurses (PHNs) and primary care providers in northern British Columbia will need to work closely together in primary care homes and interprofessional teams	<b>103-Edwina Nearhood</b> Responsible care vs. Reactive Care - the importance of the Patient Voice
<b>10:10 – 10:35</b>	<b>112-Morag Green</b> The Move is On! - 100 Mile Hospital (OMH) Mobility Plan	<b>137-Farah McKenzie</b> “Being Part of the Community”: Practices Contributing to the Professional Satisfaction of Nurse Practitioners in Northern British Columbia	<b>134-Kathryn Proudfoot</b> Findings from a provincial initiative encouraging health care providers to ask the patients they care for What Matters to You?
<b>10:35 – 11:00</b>	<b>143-Beth Ann Derksen</b> Development and Trial of a Standard Implementation Plan to Move Evidence into Practice in Northern Health	<b>138-Erin Wilson</b> “Common and Predictable?” Addressing Assumptions about Nurse Practitioner Practice in Northern British Columbia	<b>114-Sally Rosevear &amp; Marlene Apolczer</b> Engaging Patient/Family Partners in Quality Improvement
<b>11:00 – 11:25</b>	<b>108-Linda Axen</b> How Northern Health Staff are Using Evidence - A Look at the Policy Office Data	<b>127-Helen Bourque</b> The Role of Primary care in response to the Wild Fires Summer of 2017 – Northern Health	

# Rapid Fire Presentations

<b>Wednesday, November 7, 2018</b>	
<b>Time</b>	<b>Room 101 – 4:55pm – 5:15pm</b>
<b>4:55 – 5:00</b>	Dr. Denise McLeod - Group Medical Visits (GMV) for Chronic Obstructive Pulmonary Disease (COPD)
<b>5:00 – 5:05</b>	Dr. Jonathan Fine - GR Baker Hospital Readmission Project
<b>5:05 – 5:10</b>	Dr. Marijo Odulio - Surgical Start Time for Gynecological Cases at UHNBC
<b>5:10 – 5:15</b>	Dr. Abuobeida Hamour - Telemedicine in an Infectious Diseases Practice in Northern BC: The patients' experience

# Exhibit Tables

Located in the Pre-Function Area

## Exhibit Table Hosts:

- BC Patient Safety and Quality Council / Patient Voices Network
- Carrier Sekani Family Services
- Clinical Trials BC
- Continuing Medical Education / Physician Quality Improvement / Quality and Innovation
- National Collaborating Centre for Aboriginal Health
- Northern Health Library Services / UNBC Library / BC Cancer Library
- Northern Health Policy Office
- Prince George Public Library
- Research Ethics; UNBC and Northern Health



# Abstracts – Poster Presentations

*Abstracts appear as submitted and have not been edited except for formatting.*

## Prince George Civic Centre Room 102

### **102-Development of a Process for Provision of Adaptive Feeding Aids within NH Facilities**

Author(s): Judy Wakabayashi, BScOT, OT3

Objective/aim:

- To develop a standardized process for seamless provision of adaptive feeding aids to individuals requiring them in acute, long term care and assisted living sites.
- Focus on including education and promotion methods to ensure NH staff are aware of roles and responsibilities at different phases of the cycle.

Methods: Current state mapping, focus groups with individuals involved in mealtime process, PDSA cycles to monitor phases of the process (accuracy of items and provision percentage) as well as product evaluation input. Use of CBORD database as a way to implement and track use.

Results achieved:

- 300% increase in the amount of adaptive feeding aids entered onto CBORD tray tickets
- Provision of adaptive feeding aids kits to all acute and long term care sites in NH
- Development of docusource forms, posters, guide to use and a power point presentation to educate and communicate process
- Adaptive feedings aids available for purchase through eRex process

Conclusion: The development of a standardized adaptive feeding aids process has been welcomed by the vast majority of staff and individuals who are involved in mealtimes. It requires a team approach to work most effectively.

Lessons learned:

- Establish a core group of 10 or less sooner than later – teamwork
- Keep the PDSA cycles to one service delivery area
- Set firm but realistic time frames items to be ready (i.e.) forms, ordering equipment, input
- Communication is key; use a variety of methods (in-person, Skype, telephone, email) to keep everyone informed and engaged

### **106-Primary Care Prescribers' Perceptions of Standardized Medication Monitoring Plans Within an Electronic Medical Record**

Authors: Ben Wou, BSc, BScPharm, Robert T Pammett, BSc, BSP, MSc

Background: Inadequate monitoring of chronic medications is associated with adverse drug reactions and subsequent hospitalizations. Primary care prescribers in Prince George use a proprietary electronic medical record to manage their patient panel. The acceptability of electronic standardized medication monitoring plans amongst prescribers is not currently known.

Objectives: The primary objective of this study was to determine overall prescriber satisfaction with the implementation of standardized medication monitoring plans. The secondary objectives included identifying perceived barriers to appropriate laboratory monitoring of chronic medications in primary care settings and determining the baseline adherence rates to a subset of recommended monitoring parameters.

Methods: A mixed-method, prospective pilot study including primary care clinics in Prince George. Standardized medication monitoring plans were developed for amiodarone, lithium, and antipsychotics and uploaded to electronic medical records at participating clinics. Data was collected using pre- and post-intervention surveys and exit interviews. Clinical reports from the electronic medical record provided baseline adherence data.

Results: Overall reception of the monitoring plans was positive. The plans helped reduce recall burden and aided in communication between prescribers. The identified barriers to monitoring included recall burden on prescribers and poor communication between prescribers. Overall adherence to recommended monitoring guidelines was less than

80% for most parameters; however amiodarone and lithium monitoring appeared to have higher adherence rates relative to antipsychotics.

**Conclusions:** The results of this project demonstrate that there is demand for more clinical tools to help primary care prescribers monitor chronic medications, specifically for the inclusion of medication monitoring plans within the electronic medical record. Vendors should be encouraged to look into building medication monitoring plan functionality into their systems.

### **107-Evaluating the frequency of intravenous to oral antibiotic conversion in adult inpatients at a Northern BC university teaching hospital**

**Authors:** Kyle Costa, BSc(Pharm); Alicia Rahier, BSc(Pharm), ACPR

**Background:** Intravenous (IV) antibiotics are often only briefly required for treatment of infection creating opportunities for oral (PO) conversion which benefits patients, healthcare providers, and hospitals both clinically and financially. However, studies at various institutions found significant gaps in this practice. Meanwhile, no estimate exists for British Columbia's Northern Health Authority.

**Objectives:** The primary objective was to estimate the overall missed IV to oral (PO) conversion frequency of 4 antibiotics with highly equipotent IV and PO formulations. Secondary objectives involved comparing individual antibiotics for differences in missed conversion frequency, comparing appropriately converted with not appropriately converted patients in terms of effectiveness and safety outcomes, and estimating potential financial impact.

**Methods:** A single-center retrospective chart review was performed for 120 adult inpatients initiated on ciprofloxacin, clindamycin, metronidazole, or moxifloxacin from April 1, 2016 to March 31, 2017. Randomized chart selection was stratified equally by antibiotic. PO eligibility parameters were refined by the Steering Committee to facilitate retrospective design.

**Results:** Seventy-one unique charts were included for assessment of PO eligibility. Overall, 10.5% (95% CI 2.5-18.5) of patients were not converted despite eligibility. Individual antibiotic comparisons were not statistically significant. The median length of hospitalization when appropriately converted was 5 days (IQR 2-8.5) compared to 8 days (IQR 6-34) when late or missed. Appropriately converted patients experienced relatively half as many IV site complications compared to all others. Simple direct drug costs extrapolated to \$1437 (95% CI 881-1993) over the fiscal year for study antibiotics with indirect costs potentially much more substantial.

**Conclusions:** This study found a lower missed IV to PO conversion frequency for antibiotics with highly equipotent IV and PO formulations compared to the literature. Furthermore, reduced length of hospitalization, reduced direct and indirect hospital costs, and reduced IV site complications were associated with appropriate IV to PO conversion.

### **111-Improving Patient Care with More Accurate and Precise Cardiac Markers Results**

**Authors:** L Vienneau, MLT, BHSc., G Schurack, MLT

**Objective:** Improve patient care by providing more accurate and precise laboratory results, and potentially ruling out Myocardial infarction (MI) earlier by the implementation of the Radiometer AQT90 Flex Analyzer in all Northern Health level 3 laboratories and subsequently in level 2 laboratories.

**Methods:** On site verification of the Radiometer AQT90 Flex Analyzer performance at two Northern Health laboratories to the reference method for Troponin T, D-dimer, and NT pro-BNP along with a physician retrospective review of patient results.

**Results:** The Radiometer AQT90 Flex provides results in the gray-zones, providing physician with information on the "degree" of cardiac damage down to 10 ng/L. Below the normal reference interval of <14 ng/L

**Conclusion:** Improve patient care by providing more accurate and precise laboratory results, and potentially ruling out / detect Myocardial infarction earlier.

- The Radiometer AQT 90 Flex would allow the earlier detection of elevated Troponin T as well as be able to determine if the Troponin values were rising indicating a progressive cardiac episode. Earlier detection means earlier intervention and treatment.
- Negative Troponin T values would provide greater confidence in the discharge of patients.
- The potential to also have a faster NT pro-BNP value available to use in conjunction with the low Troponin T would also give more confidence in diagnosis and treatment.

## 117-How can Internists and Family Physicians work together?

Authors:

UHNBC Physician Initiative Committee (UPIC): Drs. John Smith and Ian Schokking

OBJECTIVE / AIM:

- To improve role clarification and the working relationship between Internal Medicine and Family Practice Physicians by April 2019

METHODS:

- An electronic survey was distributed to all physicians of the Internal Medicine and Family Medicine Departments at the University Hospital of Northern British Columbia using Survey Monkey

PROGRESS OF PROJECT:

- To come to an agreement as to the role of Internists and Family Physicians in caring for hospital patients and to understand each other's perspective and needs; a working group consisting of 5 physicians, 3 from Internal Medicine and 2 from Family Medicine, was established
- Approximately 8 meetings in total were conducted
- Meetings involved developing a plan, compiling a document, revising the document with feedback received from the broader physician groups involved, developing a survey and capturing lessons learned
- Subsequently, a larger group of physicians representing both departments, met June 1st, 2017 to review and revise the document
- During February 2018, a survey was conducted to gauge physician feedback regarding changes and improvements to communication within and between the departments

CONCLUSIONS:

- There is agreement that the process has worked well
- The process has facilitated consults between the two physician groups
- Long-term patient follow up, beyond initial consult requires some long-term planning to save having to call Internist again to clarify discharge plans
  - Annual evaluations should be done and reviewed by the working group

LESSONS LEARNED:

- Selecting the right people for the working group is important. Main characteristics include: understanding of the problem, willing to compromise, working well with others and be respected by the department
- There should be room to speak about what the problem is

PATIENT AND / OR COMMUNITY PARTNERS INVOLVED:

- Participants external to the two departments was Physician Quality Improvement who developed the survey and Quality Improvement who facilitated the workshop with 22 physicians present

## 118-NH Medical Imaging Accreditation: How Teamwork Reduced Outstanding Mandatory Requirements

Author – Tracy Isaak, Quality Assurance Technologist, RTR, RDMS

Aim- To reduce the number of Outstanding Mandatory Requirements (OMRs) by 25% during Diagnostic Accreditation for NH Medical Imaging sites from the 2012-2015 cycle to the 2016-2019 cycle.

Background

Diagnostic Accreditation occurs every 4 years for BC Medical Imaging (MI) Departments. Twenty six MI departments undergo Mandatory MI Accreditation every 4 years. BC sites must meet provincial accreditation standards to maintain services as a BC accredited facility.

Departments are "cited" for Outstanding Mandatory Requirements when an accreditation standard is not met.

In NH, 24 Medical Imaging sites have completed both 4 year cycles. In the 2012-2015 cycle, the 24 NH Medical Imaging departments were collectively cited on 1,388 OMRs.

- 2012-2015 cycle = 1,388 OMRs.
- 2016-2019 = 716 OMRs.

Methods

1) NH Diagnostic Accreditation Oversight Committee Meeting – All stakeholders: The first step in education and introduction of DAP process to affected sites.

- 2) The Diagnostic Accreditation Readiness Team (DART) travelled to sites prior to their DAP on site survey. Using standardized Site Inspection Checklists, the team performed “mock” DAP surveys to identify potential OMRs and suggested improved processes and procedures.
- 3) Sites had regular Individual support calls with the MI Regional DART team.
- 4) Sites shared Policy & Procedures on updated MI Team website, OurNh.
- 5) Regional Submission of 6 DAP Modules: Governance & Leadership, Medical Staff, Quality Improvement, Information Management, Imaging Informatics, & Radiation Safety
- 6) Hosted a regional NH Management Assessment survey - NH Regional Representatives and department managers in attendance (Prior to this process, all managers were surveyed individually at their site).

#### Results

Currently, we are in our third year of the 2016-2019 cycle with 2 remaining sites for survey in 2019. Results to date reveal 715 OMRs in the 2016-2019 cycle (a reduction of 48% so far).

On average, 3 hours are spent to satisfy and submit evidence per OMR for DAP acceptance.

A reduction of 2,019 NH working hours (48%) has been achieved when comparing the two 4 year cycles.

### **121-Nurse Practitioner Perception of Workplace Engagement in Primary Health Care in Northern British Columbia**

Authors: Robert Pammett, BSc, BSP, MSc<sup>1,2</sup>; Andrew Schultz<sup>3</sup>; Alex MacDonald<sup>3</sup>; Farah McKenzie, NP(F)<sup>3,4</sup>; Helen Bourque, NP(F)<sup>1</sup>, Erin Wilson, NP(F), PhD<sup>3</sup>

1. Northern Health
2. University of British Columbia
3. University of Northern British Columbia
4. British Columbia Cancer Agency

Objective: To determine the extent to which Nurse Practitioners (NPs) in northern British Columbia (BC) perceive their workplace to be engaged in Primary Health Care.

Methods: NP perceptions were assessed using the Primary Health Care Engagement (PHCE) Scale; a 28-item validated questionnaire which may be used to track progress in primary health care reform. The PHCE Scale determines perceived workplace engagement in eight attributes of Primary Health Care.

Results: Thirteen NPs from across northern BC completed the PHCE scale, representing a 45% response rate. The proportions of NPs who agreed that their workplaces were engaged in Primary Health Care according to the subscales were as follows: Patient Centered Care (100%), Interdisciplinary Collaboration (77%), Community Participation (54%), Quality Improvement (38%), Intersectoral Team (38%), Continuity (23%), Population Orientation (8%) and Accessibility/Availability (0%). Variation in responses based on attributes and the scale overall will be discussed in the context of setting. Considerations are made for the ways in which NPs perceive primary health care delivery in northern BC.

Conclusion: The extent to which NPs perceive their workplaces to be engaged in Primary Health Care varied across the eight subscales. Findings reflect frontline provider-level understanding of the stage of primary health care transformation as it continues in northern BC. The PHCE scale is a promising tool to measure changes in engagement as Primary Health Care reforms continue.

### **123-Cardiometabolic Risk and Inflammatory Profile of Patients with Enduring Mental Illness**

Authors: Aashka Jani, Dr. Roseann Larstone, Dr. Sarah Gray

Affiliation: Northern Medical Program, University of Northern British Columbia, 3333 University Way, Prince George, V2N 4Z9

Objective: Individuals experiencing enduring mental illness (EMI) have higher rates of cardiometabolic disease, such as diabetes and obesity, in comparison to the general population due in part to unhealthy lifestyle choices and antipsychotic medications. Recent studies suggest common biological mechanisms may contribute to the association between EMI and cardiometabolic disease, including pre-morbid inflammation. Both EMI and obesity are states of chronic, low-grade inflammation, yet clinical characterization of inflammatory profiles early in EMI and in association with cardiometabolic complications is not well understood. We hypothesize that a heightened state of inflammation is

present at onset of EMI and this is associated with cardiometabolic complications, such as obesity and insulin resistance. To test this, pro-inflammatory cytokines were measured, along with physical and biochemical measures of cardiometabolic health in patients with first break psychosis compared to control participants.

Methods: Patient participants were referred from the Early Psychosis Intervention (EPI) clinical team at the University Hospital of Northern British Columbia with age-matched controls recruited from the University of Northern British Columbia. Physical measurements of cardiometabolic health (body weight, BMI, WC and BP) were obtained and biochemical measurements of cardiometabolic health (glucose, TC, LDL, HDL, TG, insulin resistance) were measured in plasma samples (Lifelabs, Prince George). Circulating levels of TNF- $\alpha$  and IL-6 were determined by enzyme-linked immunosorbent assays (ELISAs) at UNBC. Significant differences ( $p < 0.05$ ) between patient and control participants were determined by one-way ANOVA.

Results and Conclusion: Preliminary results show patient participants had significantly higher waist circumference and body weight than control participants, supporting the observation that obesity is present early in onset of EMI within 6 months of initiating anti-psychotic medication use. Thus far, all other measurements were not significantly different between the two groups, suggesting pro-inflammatory cytokines may not be an early marker of cardiometabolic risk in patients experiencing EMI.

### **124-12m Caries Risk Assessment Tool: Improvement – NW Dental staff sees all 1 year olds instead of using a 12m dental questionnaire and mail follow-up process**

Author(s): Dianne Grebliunas, CDA Certified Dental Assistant

Aim: Dental Program's primary goal is to reduce Early Childhood Caries (ECC) by fluoride applications and preventive education. We accomplish this by...

- Increasing the # of dental high risk children being seen by dental staff
- Increasing the accuracy of decay risk in 12m olds by seeing them in clinics versus a self-reporting tool (12m CRA)
- Increasing the # of 12m olds being seen by dental staff

Methods: Collaboration with PCN's & PCA's, in 6 communities to book 12m old children into Dental Fluoride Varnish Clinics. This was instead of providing & processing the 12m dental questionnaire (12m CRA).

- Stopped using a "self-reporting" tool (12m CRA) that was not accurate in identifying risk for decay
- Increased accuracy of actual dental risk by asking questions in person;
- Pre-booked 12m old children into the FV clinics, in person instead of a mail out
- NW reduced costs in time and resources by not sending out 12m dental packages.
- Decreased cancellation and no show appointments

Results:

Increased the # of high risk children attending FV clinics.

Increased the # of immunized 12m olds attending FV clinics. An improvement of 25% in one year.

Lessons Learned:

- We can save money and target staff time towards service delivery versus administration duties.
- We could start expansion one community at a time, smaller rural communities where staff provide regular FV Clinics.
- Would need to endorse/support operations to incorporate booking upon departure at 12-month immunization visits – provide PCA's with dental clinic schedules in advance
- Would need to provide timely orientation to new staff (PCN's & PCA's) of booking process for 12-month immunization upon discharge – provide dialogue for promotion of program

### **129-Partnering for Change: Understanding the process of primary care transformation**

Presenting Author: Leana Garraway; Co-Authors Martha MacLeod, Neil Hanlon, Trish Reay, David Snadden

Objective/aim: This poster will explain the findings from the Partnering for Change: Understanding the process of primary care transformation project, the purpose of which is to understand how networks of partners can be engaged to transform primary health care (PHC) at community and regional levels.

Methods: Three rounds of interviews were conducted between 2012-2014, a total of 239 interviews with 122 participants, in seven communities around Northern British Columbia: Prince Rupert, Burns Lake, Fraser Lake, Prince George, Mackenzie, Fort St John and Valemount. Interviewees included doctors and other health care providers, community organizations, municipal leaders, the Ministry of Health, and regional health authority leaders.



Results: Thematic analyses was used to develop themes that describe how changes occurs by means of the relationships, partnerships and networks that are built within and beyond the communities. The poster will go into detail about these themes, which include creating and sustaining productive partnerships for innovation, keeping the focus on people in community, taking advantage of opportunities, and encouraging experimentation while managing risk.

Conclusion: Northern Health, northern physicians, and communities have been and continue to be in the process of accomplishing a transformed system of care as an outcome of re-orienting health services to focus on patient-centered care and the health of the population. This research would indicate that transformative change can be accomplished when the partners work together. There is potential for this new system to improve the lives and health of those living in rural and northern communities.

Lessons learned: This is a long-term approach to change. In Northern BC, the process is still underway and the outcomes are yet to be fully realized.

### **130-Partnering for Change II: Transforming primary health care in Northern BC**

Presenting Author: Martha MacLeod; Co-Authors Neil Hanlon, Trish Reay, David Snadden, Leana Garraway

Objective/aim: This poster will explain the planned activities for the new project Partnering for Change II: Transforming Primary Health Care in Northern BC. This project will continue and expand the work accomplished on the project Partnering for Change I, begun in 2010, to understand how networks of partners can be engaged to transform primary health care (PHC) at community and regional levels. The health care reform in northern BC is ongoing, and more needs to be understood about the process. The purpose of Partnering for Change II is to continue to study the gap in knowledge about how processes of changing a health system in partnership among communities, physicians and health authority can work.

Methods: We will employ a mixed methods approach that entails primary data collection in the form of three rounds of interviews with key informants over 3 years. The interviews will take place in seven communities around Northern British Columbia, five communities that were engaged in Phase I, Prince George, Prince Rupert, Fraser Lake, Prince George, Valemount, and Fort St. John, and two new communities, Chetywynd and Kitimat. Interviewees will include doctors and other health care providers, community organizations, municipal leaders, the Ministry of Health, and Northern Health leaders. Many of the participants from the Phase I study will be invited to participate in Phase II.

Results and Conclusion: Expected will be the creation of both theoretical and practical knowledge related to relationship building and changing health services that will be useful in settings across Canada.

Lessons Learned: Changing health services to better suit northern people and communities takes time. Continuing research on the changing primary health care services is needed in order to understand how ongoing change can happen and how health service improvements be sustained in Northern BC.

### **132-Patient-centered refeeding syndrome risk management guidelines for rural and remote cancer patients**

Authors: L Van der Meer<sup>1</sup>, E Camfferman<sup>1</sup>, R Watt<sup>1</sup>, M Darbyshire<sup>1</sup>, O Jebbink<sup>1</sup>  
<sup>1</sup>BC Cancer Centre for the North – Prince George

Aim: Creation of evidence-based interdisciplinary outpatient refeeding management processes for rural and remote cancer patients treated at BC Cancer Centre for the North.

Rationale: Refeeding syndrome can be a life-threatening metabolic condition caused by nutritional replenishment (such as tube feeding) if not recognized early and treated adequately. Evidence-based guidelines exist to guide assessment of refeeding syndrome risk. However, there is a lack of evidence to guide outpatient refeeding syndrome management, particularly in rural and remote settings. Safe outpatient refeeding syndrome management can prevent hospital admissions and improve patient experience.

Methods: Revision of feeding tube insertion and enteral nutrition order sets, creation of oral electrolyte replacement guidelines, division of interdisciplinary monitoring and management responsibilities, patient education resource, and development of process evaluation post-implementation.

Progress of Project:

- 1) Order set and electrolyte replacement guidelines completed and implemented.
- 2) Patient experience interviews to validate guidelines ongoing.
- 3) Key clinician stakeholder surveys to evaluate ease of completion and understanding of role delineation ongoing.
- 4) Addition of refeeding syndrome risk factors to existing head and neck cancer nutrition database for future research.

Lessons Learned:

- 1) There is virtually no evidence to guide outpatient refeeding management practices for rural and remote cancer patients.
- 2) On-site dispensing of oral electrolytes improves quality of care and patient experience.
- 3) Evidence-based electrolyte replacement guidelines improve clinician comfort with outpatient refeeding management.
- 4) BC Cancer clinicians can be leaders in establishing practices and collecting data for future research.

### 133-Increasing efficiency and coordination of the animal exposure (rabies) investigation process

Authors: Talina Almeida and Shane Wadden

**Aim:** To provide Health Protection and Disease Prevention, Medical Health Officers and Primary Care staff with a concise guide outlining the roles and responsibilities of staff in assessing the risk of rabies transmission and conducting exposure management.

Methods:

- Mapped out roles and responsibilities for Health Protection and Disease Prevention, Medical Health Officers and Primary Care staff involved in the investigation process.
- Facilitated a '5 Whys' session to determine the root cause of the problems affecting efficiency and consistency.
- PDSA cycles provided the framework for developing, testing and implementing animal exposure (rabies) policy creation, implementation and evaluation.

Measurements:

1. To reduce the number of outdated internal guidance documents in relation to animal exposure management by 50%. Results Achieved: 53% reduction of outdated documents.
2. To increase the usage of the database to determine the amount of animal exposure cases assessed by the Health Authority, before and after improvements have been implemented. Results Achieved: 46% increase in database usage from 2017 to 2018.
3. Staff satisfaction survey underway.

Lessons Learned:

- Need to develop a routine policy/process review for all staff to ensure best practices are being followed.
- The policy and clinical practice standard development framework as well as quality improvement methodologies assisted the team to systematically review current processes and make revisions that were regional and evidence-informed.

### 135-My Physical Activity Handbook: A Resource to Overcome Identified Barriers to Exercise Adherence Post-Discharge from the Prince George Cardiac Pulmonary Rehabilitation Program

Authors: Rae Marchal, MPT(c)<sup>1</sup>, Candice Herbert, MPT(c)<sup>1</sup>, Christina Pelletier, MPT(c)<sup>1</sup>, Tracy Murray, MPT(c)<sup>1</sup>, Beth May, MPT(c)<sup>1</sup>, Kerrie Roberts BHSCT<sup>1</sup>, Daeshel Heidelbach, BSc(Kin) CEP<sup>2</sup>, Robin Roots, PT, MSc<sup>1</sup>

<sup>1</sup> Department of Physical Therapy, University of British Columbia, Northern and Rural Cohort, University of Northern BC, Prince George, BC.

<sup>2</sup> YMCA of Northern BC, Prince George, BC

**Aim:** The aim of this quality improvement (QI) project was to increase the exercise adherence of participants of the Prince George Cardiac Pulmonary Rehabilitation Program (PGCPRP) 3-6 months post discharge, as measured by the number of participants achieving 150 minutes a week of physical activity at a moderate intensity. Conducted by UBC Physical Therapy students, this project showcases a benefit of the partnership between UBC, YMCA of Northern BC and Northern Health in the development of the PGCPRP.

**Methods:** Based on reported barriers to exercise identified by a PGCPRP 2016 QI project, a handbook was developed to provide locale and population specific resources that addressed barriers to exercise. The handbook was developed by students with engagement of PGCPRP participants, integrated into existing patient education sessions beginning November 2017 and given to participants upon discharge from the program. Follow-up questionnaires were mailed to participants who graduated prior to the handbook's implementation and to participants who received the handbook. Results of the two questionnaire sets were compared to evaluate the handbook's effect on participants' exercise adherence 3-6 months post-graduation.

**Results:** Results showed that the handbook had no statistically significant effect on exercise adherence as evaluated by the number of participants achieving 150 minutes a week of moderate intensity exercise (p=0.71). Both groups achieved similar levels of exercise at any intensity (pre-intervention=64% vs post-intervention= 63%); considerably

greater than the 12-18% of Canadians who meet this guideline. Participants who received the handbook identified fewer barriers to exercise adherence than those who did not.

**Lessons Learned:** The small sample size, time of year and disruption in PGCRP service may account for the lack of change following implementation, however positive feedback received from participants leads to the recommendation that this resource should be made available to participants of exercise programs aimed at chronic disease management.

### **139-The influence of knowing patients in providing comprehensive team-based primary care.**

Authors: Wilson, E., & MacLeod, M.

Context: Implementation of primary care teams in British Columbia, Canada offers opportunity to understand how non-co-located teams function within a primary care home model.

Objective: To describe how the function of the interprofessional team is influenced by the ways in which primary care providers know their patients. The value of relationship-based care that may otherwise be overlooked is emphasized.

Design: Observations and interview data collected over 5 months during early implementation of an interprofessional primary care team were analyzed hermenutically.

Setting: Data were collected in primary care offices and patient homes.

Participants: Observations of 37 primary care encounters between primary care providers and patients or team members and patients along with interviews with seven patients, five primary care providers (physicians and nurse practitioners), and eleven interprofessional team members provided understanding and clarification of practices within the interprofessional team.

Results: Primary care providers who know their patients well provide comprehensive primary care. When primary care providers know their patients well, team members are less needed to become involved for singular functions of primary care, such as medication management or counselling for mild depression. Rather, team members become involved with patients of the highest complexity to address issues such as dementia in the context of financial insecurity and disruptive family dynamics. Relational practices embedded in primary care encounters provide the opportunity for continuity and comprehensive care between primary care and the full team.

Conclusions: Relationship-based care whereby primary care providers know patients well improves comprehensiveness of primary care and influences how team members become involved in patient care. Team members are then able to address complex medical and social issues of patients' lives. Rather than alleviating the primary care providers' "burden" of common primary care functions, the team extends care of the patient into the realm of primary health care.

### **140-Tracking post-season respiratory function and symptomology in wildfire fighters from northern British Columbia after the 2017 wildfire season**

Authors: K Ward<sup>1</sup>, M Eadie<sup>1</sup>, D Olmstead<sup>2</sup>, and C Pelletier<sup>1</sup>  
1 School of Health Sciences, University of Northern British Columbia  
2 Northern Medical Program, University of British Columbia

Objective: To observe changes in wildfire fighters' respiratory health and function after cessation of exposure to occupational respiratory hazards.

Methods: Wildfire fighters were recruited from three wildfire bases in northern British Columbia. All measures were collected once every four weeks post-season in September, October, November, and December of 2017. Subjective respiratory (e.g. coughing, sore throat) and general health (e.g. headaches, fatigue) symptoms were measured with a self-report survey. Physiological measures included anthropometrics (height, body mass, waist circumference), cardiovascular health (blood pressure, heart rate, oxygen saturation, and mean arterial pressure), and standard respiratory function (spirometry). Multivariate repeated measures ANOVA tests were used to analyze data across time points. Missing data points were excluded from analysis.

Results: 34 participants were recruited and completed two or more timepoints. Participants were a mean  $23.83 \pm 4.67$  years of age and 88.3% were male. At baseline, 88.3% (n = 30) of participants report at least one respiratory or general health symptom. At four months post-season 16 of 23 (69.6%) participants reported respiratory health symptoms and 13 of 23 (52.2%) participants reported general health symptoms. The change in symptom prevalence

was not statistically significant ( $p > 0.05$ ). The most commonly reported symptoms were coughing ( $n = 28$ ) and fatigue ( $n = 26$ ) across all time points. Objective measures of respiratory health, cardiovascular health, and anthropometric measures showed no significant changes during the four month recovery period ( $p > 0.05$ ).

**Conclusion:** Results of this small, preliminary study suggest that there are no short-term changes in respiratory health following the firefighting season, however there was a progressive decreasing trend in the total number of self-reported symptoms. Future studies should examine longitudinal changes in respiratory health and recovery in wildfire fighters over multiple years of exposure.

#### 142-Intermediate Quality Improvement Projects in Northern Health

**Authors:** Multiple (see table below); **Contact:** Tanis Hampe, Regional Director, Quality & Innovation

**Aim:** To develop the ability of staff, physicians, and managers to undertake continuous quality improvement action in Northern Health (*Northern Health Strategic Plan...Looking to 2021*)

#### Methods:

Northern Health continues to strengthen a culture of continuous quality improvement and patient safety. A Quality Improvement (QI) training program is part of the organization's strategy to build that culture. Everyone has a role to play in quality. All of the workshops are free to employees, medical staff and volunteers and are facilitated by the Quality & Innovation staff.

The Intermediate QI course is offered annually and involves five days of in-person class time, monthly one-hour webinars and completion of an improvement project with mentoring support. Intermediate QI participants can also register to pursue Lean Green Belt certification through Leading Edge Group.

To date, 114 staff and physicians from Cohorts one to five have completed Intermediate QI and 63 are in progress. Forty-four participants were accepted into Cohort 5 and started the course in September 2017. They are working on 28 QI projects.

Participants are encouraged to present their storyboards at the annual NH Quality Conference. The projects from cohort five that are ready to present this year are listed below.

**Results and Lessons Learned:** All quality improvement projects presented include results and lessons learned on the storyboards.

Below are the project titles and primary authors for presentation at the 2018 Research and Quality Conference.

Title	Author(s)
Communicating and Increasing Use of the Adaptive Feeding Aids Process within NH Facilities	Judy Wakabayashi
Decreasing the Number of Failed MSP Claims in MOIS Using Correct Codes and Patients Information	Denise Cerquiera-Pages
Enhanced Resident Satisfaction through Tableside Meal Service	Heather Shannon
Fort St. John Hospital Laboratory Out Patient (OP) Wait Time	Tara Mitchell, Laura Lee Bianchi, Lisa Pittman
Getting Green – A Recycling Project at Wrinch Memorial	April Sebastian
Identifying Frail Patients in the Primary Care Home and Connecting them to the Interprofessional Team	Tamara Stephens
Medical Clinic Supply room 5-S project	Julia Sundell, Shirley Webb
Northern Health Trusted Access, a Two-Factor Authentication Service for Webmail, i-Site and Remote Computer Access	Dave Moleschi
Reducing the Risk: Crucial Conversations Regarding Patient Placement	Laura Brough
Surgical Start Time for Gynecological Cases at UHNBC	Dr. Marijo Odulio, Jodi Temoin, Shelley Movold
Transition of Care Communication between units at G.R. Baker Memorial Hospital	Laura Johnston

## **146-Cause-of-Death Trends of the Oldest Old Over Four Decades in Canada**

Authors: Beibei Xiong, BM, BA1, Shannon Freeman, PhD2  
1 School of Health Sciences, University of Northern British Columbia  
2 School of Nursing, University of Northern British Columbia  
(Contact Person: Beibei Xiong, Email: bxiong@unbc.ca)

**Objectives:** The oldest old (persons aged 85 and older) are one of the fastest growing segments of the Canadian population, however, their mortality profiles have not been studied extensively. This study aims to examine the trends in age at death among the oldest old and the trends in mortality within several broad cause-of-death groups from 1976 to 2015 in Canada.

**Methods:** A population-based study was carried out using routinely collected data from Canadian Vital Statistics Database. All individuals aged 85 and over died between 1976 and 2015 were included in this study and divided into four age groups (85-89, 90-94, 95-99, ≥100). Descriptive analysis was performed to describe the distribution of cause of death by age groups, sex and geography. Trend analysis was performed to examine the cause-of-death trends from 1976 to 2015.

**Results:** The characteristics such as age, sex, and place of death of the oldest old who died between 1976 and 2015 are described. The trends in age at death among the oldest old from 1976 to 2015 in Canada is presented. The trends in mortality within several broad cause-of-death groups from 1976 to 2015 in Canada is also shown. The leading causes of death by age groups, sex and geography from 2000 to 2015 are described.

**Conclusions:** This study contributes to a better understanding of the epidemiologic transitions experienced in the oldest old population in Canada, which allows for epidemiological approaches that can be used to develop insights into the health and cause of death of patients aged 85 and over. The secular trends have valuable implications for disease prevention and control and for resource allocation of patients aged 85 and over.

## **148-Specialized expertise enhancing care for people with Spinal Cord Injury in Northern BC: The SCI BC Infoline experience**

Heather Lamb, MSW, Jocelyn Maffin, BSc, Bert Abbott, Spinal Cord Injury BC

**Aim:** To describe a non-profit phone/email information resource Infoline supports patients and healthcare providers in the north to provide quality care for low-incidence (~12,000 in BC), high-need health condition.

**Methods:** Descriptive statistics of Infoline queries from 2015-2016, 2016-2017 and 2017-2018 to Spinal Cord Injury BC's Infoline, a phone/email hotline providing specialized information and expertise about Spinal Cord Injury (SCI) to healthcare providers, patients/families with SCI across BC, with a focus on concerns of clinicians and individuals with SCI in communities within the Northern Health (NH) region.

**Results:** Where clinicians have few patients with SCI, there is often a knowledge gap. SCI BC's Infoline helps fill this gap, staffed by information specialists using a database of current SCI clinical, rehabilitation and community supports.

Infoline received 3132 queries in 2017-2018, up 20% from 2016-2017. Of calls attributable to BC's health regions, NH communities maintain second highest source of queries second only to VCH, at 26% in 2017-2018, up from 22% in 2015-2016. Approximately 11-15% of all queries come from healthcare workers. The top query topics for all of BC are SCI health complications, finding accessible housing, funding for equipment/supplies, transportation, and travel/recreation across all three years, whereas the top 5 NH query topics for the same period highlight the impacts that the Northern climate and availability of health resources pose to people living with SCI and their families: (lack of) access to specialist SCI medical care (and travel to specialists), lack of accessible housing, problems in winter weather, transportation in rural areas, and isolation.

Infoline remains a valuable source of information and support for the North. This unique dataset gives us a snapshot of major areas of concern and their clinicians in Northern BC, offering SCI specific expertise and an opportunity to partner to improve the quality of healthcare available to those with this complex condition.

### **149-Hemodynamic and metabolic measurements from the prefrontal cortex during cognitive activity and cycling exercise**

Authors: K Van Volkenburg, BHSc student1, V Rea, BHSc student1, B Duffels, BSc, MSc, PhD student2, H Matheson, PhD2, T Klassen-Ross, PhD1,2, RL Harris, PhD1

1UNBC School of Health Sciences  
2UNBC Psychology Department

Background: Near-infrared spectroscopy (NIRS) can non-invasively measure human cerebral (i.e., brain) metabolism, as during cognition or exercise. Frequency domain NIRS instruments measure absolute values, whereas most NIRS instruments measure changes from an arbitrary baseline. However, for experiments involving NIRS measurements before and after an intervention, it is not known whether follow-up frequency domain absolute values are reliable if the instrument is disconnected from the participant during an intervention that takes place between the “pre” and “post” experiments. We refer to this as a “discontinuous” experiment, as opposed to a continuous experiment, in which the instrument remains connected to the participant throughout.

Objective: The purpose of this pilot study was to test the following hypothesis: cerebral pre/post NIRS comparisons are the same during discontinuous and continuous experiments.

Methods: Five participants completed the continuous and discontinuous experiment types in two separate sessions. NIRS measurements were made from the prefrontal cortex while participants performed a Spatial Span working memory test—both before and after a 10-minute exercise bout.

Results: The continuous and disconnected types of NIRS experiments were not comparable.

Conclusions: Based on our preliminary data we conclude that, in discontinuous experiments, a second baseline measurement must be performed following the exercise intervention in order for pre-post cognitive tests to be compared using NIRS. This pilot study may have implications for studying brain function in clinical settings where exercise interventions are used for rehabilitation purposes.

### **150-Human bone blood flow and metabolism during resistance exercise**

Authors: C Jensen, BSc, MSc student1, A Braaten, BHSc student2, RL Harris, PhD2

1UNBC Interdisciplinary Studies Program  
2UNBC School of Health Sciences

Objective: The purpose of this pilot study was to test the hypothesis that hemodynamics (e.g., blood flow) and metabolism (e.g., oxygenation) can be measured side-by-side in bone and muscle, in the same leg, during both dynamic and static resistance exercises.

Methods: To achieve this, blood hemoglobin concentrations were measured using near infrared spectroscopy (NIRS) from the shin bone (i.e., tibia) and calf muscle (i.e., medial gastrocnemius) during static and dynamic contractions.

Results: In each tissue, the overall magnitudes of blood volume and oxygenation changes were similar in static compared to dynamic contractions. In bone compared to muscle, however, hemodynamic and metabolic changes were of completely different direction and magnitude: oxygenation and blood volume increased in bone, but decreased in muscle. Importantly, during exercise, deoxygenated hemoglobin did not change in bone, but increased in muscle.

Conclusions: This pilot project is the first-ever systematic, non-invasive study of blood flow and metabolism in human bone tissue during exercise. Our data suggest that, unlike in muscle, changes in bone blood flow and oxygenation during exercise are not determined by metabolic activity. This probably indicates that bone hemodynamic fluctuations measured using NIRS during resistance training are driven by the compression and release of the blood vessels supplying by the bone, rather than by large fluxes in bone metabolic activity. These data have implications for biomedical research and health care, especially exercise physiology and injury rehabilitation. Namely, NIRS may be useful for developing non-invasive, non-ionizing imaging approaches for real-time evaluation of bone in disease, injury, healing/repair, and exercise.

## 152-Implementation of physical activity interventions in rural, remote, and northern communities: a scoping review

**Authors:** Robin Keahey,<sup>1</sup> Anne Pousette,<sup>2,3,4</sup> Kirsten Ward,<sup>1</sup> Gloria Fox,<sup>5</sup> Sandra Allison,<sup>1,5</sup> Drona Rasali,<sup>6,7</sup> Guy Faulkner,<sup>8</sup> Chelsea Pelletier,<sup>1</sup>

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<sup>7</sup> Adjunct Professor, Faculty of Kinesiology and Health Studies, University of Regina

<sup>8</sup> School of Kinesiology, University of British Columbia

**Objective:** The objective of this review was to examine and map literature evaluating implementation of physical activity interventions in rural, remote, and northern communities.

**Methods:** Databases including MEDLINE, PsycINFO, EMBASE, CINAHL, and SPORTDiscus were searched with a pre-determined search strategy. The search strategy included terms for population, physical activity, implementation, and study design. Inclusion criteria included physical activity interventions delivered in rural, remote, or northern communities with an implementation evaluation. Outcomes of interest included community demographics, program characteristics, intervention results, and aspects of implementation such as fidelity, dose delivered or received (e.g. adherence rates), and facilitators or barriers to program success.

**Results:** The initial database searches identified 1672 articles and 8 were added with hand searching. After the removal of duplicates and screening based on inclusion criteria, 12 articles remained for inclusion in the narrative synthesis. Articles were from the US (n=5), Australia (n=3), Canada (n=2), South Africa (n=1), and a comparison between the US and Australia (n=1). They were workplace-based (n=1), school-based (n=2), and community-based (n=9). The majority (n=9) of the articles reported adherence, completion, or utilization rates. The school-based and work-based interventions reported a common barrier of time availability. Community-based interventions reported barriers of accessibility, transportation, sociocultural factors, and the weather. Interventions were facilitated by the unique community characteristics commonly reported in rural communities including social cohesion, collaboration, and shared resources.

**Conclusions:** The results of this scoping review highlight a clear gap in the literature. The majority of research on implementation of physical activity interventions focuses on urban settings, as such, many positive aspects of rural living are not well understood or measured. These context-specific facilitators, such as social cohesion, can be utilized creatively in order to overcome or minimize barriers preventing program success in rural, remote, and northern communities.

## 156-Identification of Telehealth Quality Indicators: Implications for Quality Improvement

**Authors:** Timothy Wood, BScN1, Shannon Freeman, PhD1, Georgia Betkus, BSc2, and Frank Flood3

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**Introduction:** Telehealth has the ability to improve the quality of care across the care continuum. However, a heterogeneity of quality indicators exists to measure telehealth. To measure and compare a variety of telehealth services, it is necessary to develop a universal framework capable of pan-service evaluation. As such, a scoping review was conducted to identify clinically relevant, evidence-based quality indicators to inform a universal measurement framework.

**Objective:** The purpose of the scoping review was to identify and describe how telehealth is being measured across all service types, while paying attention to service-specific quality indicators.

**Methods:** A scoping review was conducted based on Arksey and O'Malley's (2005) methodological framework. Eight databases were searched yielding 4,321 articles. Of these articles, 104 were selected for final review which included numerical and thematic analysis.

**Results:** A variety of telehealth services were identified (N=31) including telenursing and teletrauma. Across all services, a heterogeneity of quality indicators exists. In total, 356 unique measurement tools were identified, utilizing a

large variety of service-specific metrics. Outcome measures were able to be organized in to four high-level categories to facilitate pan-service evaluation: patient experience, provider experience, cost optimization, and population health.

Discussion: A lack of consistency in quality indicator utilization precludes pan-service telehealth evaluation and complicates quality improvement efforts. To reduce diversity and complexity, a high-level organizational structure was delineated. This organizing framework provides the basis for a universal framework that can measure and compare telehealth services, providing direction and transparency in quality improvement efforts across the continuum of care.

Key words: Telehealth, Quality Improvement, Outcome Indicators, Scoping Review

### **160-GR Baker Hospital Readmission Project**

Authors: Jonathan Fine, Marna DeSousa, Riley Beckman

Aim: To Reduce Readmissions of Frail Elderly Patients to Acute Care at GR Baker Hospital

Methods: Frail elderly patients who are at high risk for readmission to acute care following discharge are identified using the LACE Tool. High readmission rates increase the load on acute care services, patients, and their caregivers. Studies have shown that high readmission rates are associated with inadequate support and follow-up in the community. Enhanced discharge planning aims to identify the patient's and their family/caregivers needs prior to discharge and to mobilize and coordinate the various community agencies involved. Follow-up must ensure that the plan is being followed.

Results:

- the first idea tested was whether readmissions of frail elderly patients contributed to chronic overcapacity in acute care. It was established that 42% of patients over 65 in acute care [excluding ALC] had a prior to admission within the six months preceding the current admission. In our control charts there did not appear to be any special course effects.
- The second idea tested was that the LACE Tool could be used to identify those patients who were at risk of readmission. All of the readmitted patients scored higher than 11 on the LACE Tool indicating a high risk for readmission, and validating that it was relevant in our context.
- The next idea tested was whether it was practical to complete the LACE screening without the use of additional resources. Initially this was done by the CPL and discharge planner but has been taken over by one of the authors [RB] who is found that the score can be completed based on nursing admission history and information from power chart.
- A discharge planning checklist has been developed to ensure completeness.
- We have undertaken a mapping process to determine the journey a patient takes following their discharge from hospital. We have found that no fewer than nine separate Northern Health agencies may be involved in providing care, not counting private and volunteer agencies.

Lessons Learned:

- It is relatively easy to identify frail elderly patients who are at high risk for readmission to acute care.
- The discharge planning process needs to be started early in the admission and involve family and caregivers.
- The discharge planning process is complicated and requires the coordination of numerous agencies. This potentially represents a significant drain on time and human resources.
- Follow-up is required to ensure that the discharge plan is followed in the community.
- The project is now engaged in developing the most efficient way in which the discharge plan can be implemented.
- Once implemented the readmission rates will be monitored to identify any trends.

### **163-Strength Within: Community led suicide prevention in Northern BC**

Presenting Authors:

Travis Holyk<sup>1</sup>, PhD., Henry Harder<sup>2</sup>, PhD., Tina Strudsholm<sup>1,2</sup>, MSc.  
1 Carrier Sekani Family Services, 2University of Northern British Columbia

Contact: Tina Strudsholm, Tina.Strudsholm@unbc.ca, 250-960-5121

Objectives:

The Strength Within Project is a community-university partnership responding to a community identified need to promote mental wellness and prevent suicide among young Indigenous adults (25-45 years old) living on-reserve across northern BC.

Methods:

Development, implementation and evaluation strategies of the Strength Within mental wellness and suicide prevention intervention are based on Indigenous research methods informed by Indigenous methodologies. As such, the strength



based and community led project aims to support equitable partnerships, incorporate capacity building, attend to process, and have action-oriented outcomes. A community based advisory committee provides guidance and oversight in all aspects of the project from conception, development, implementation, and interpretation of the results. Both qualitative and quantitative implementation data were collected using semi-structured and standardized testing.

#### Results:

Preliminary results demonstrate positive effects on wellbeing among workshop participants (reduced depression and hopelessness; increased self-esteem and resiliency). Workshop participants reported enjoying working through the educational materials as a group, talking about old ways, becoming more confident in how to talk about suicide, and developing skills to help others.

#### Conclusions:

This research demonstrates how a strength based and community led approach to mental wellness promotion and suicide prevention with Indigenous communities is a viable alternative to deficit based and crisis oriented responses to suicide.

#### Lessons Learned:

- Developing productive partnerships requires substantial investment in time and money in order to support ongoing and meaningful engagement
- Interventions need to provide flexibility to accommodate cultural differences and variations

### **164-Endoscopy Program – Service Pathway Improvement, St John Hospital**

Authors: Dr. Sean Ebert and Dr. Alison Fine

This initiative aims to improve the clinical quality and the quality of the patient experience for all patients attending the Endoscopy Clinic at St John Hospital.

A comprehensive quality program provides a means for assessing and, ultimately, improving the delivery of patient-centred endoscopic services. The primary aim is to identify processes and indicators relevant to the provision of high-quality endoscopy services.

To ensure safe and efficient provision of colonoscopy screening, regular monitoring of colonoscopy outcome data against established standards is essential. Identification of results below benchmarks offers the opportunity for immediate improvement.

#### To date:

- Quarterly reviews have been established to review and implement appropriate Global Rating Scale recommendations for a quality program
  - o Indicators related to qualitative and process elements have been identified and prioritized – change improvements started
- Baseline 'access' data obtained
  - o Wait times (referral to consultation) – change improvements started
  - o Wait times (consultation to procedure)
  - o No-show rates

#### Lesson Learned:

- In order to review relevant indicators it is essential to have access to real-time electronic data that is easy to capture and review

#### Next Steps:

- Identify appropriate indicators of quality related to the appropriateness and technical performance of the procedure
- Regular scheduled reviews to monitor 'real-time' dashboard and trends of relevant indicators to monitor access, capacity, efficiency, and appropriateness of endoscopy services.
- Explore and implement strategies to ensure capacity = demand

## **165-Co-Creating Meaningful Patient Oriented Participatory Research on Gardening and Horticultural Therapy in a Long-Term Care Facility**

Authors: Rebecca Ferris, BA , Shannon Freeman, PhD , and Sandra Barnes

**Introduction:** Older adult residents in a Long-term and Assisted Living care facility in northern British Columbia partnered with researchers from the University of Northern British Columbia and representatives of the Northern Health Authority to inform development and planning of new gardening and horticulture program focused on promotion of the natural environment in their facility.

**Objective:** This co-directed study follows a participatory approach as our inter-disciplinary team worked with older adult residents to define the scope of this project.

**Methods:** Together, residents and researchers conducted an environmental scan and researchers are currently conducting a knowledge synthesis of existing horticulture practices in long term care facilities. Weekly meetings with residents in their facility were conducted to ensure that the project is resident-driven. This involves co-searching online, identifying search terms, and scanning of retrieved resources. Though this project began with one patient partner expressing her own desires, it has expanded to a larger group of residents. They are enthusiastic to undertake a resident-driven approach to researching and designing a project to improve opportunities for horticulture for themselves and other residents.

**Progress:** This poster presentation will discuss the co-design process of patient-oriented research employed on our project in a long-term care facility setting with a focus on methods and benefits of engagement with patients.

**Conclusion:** A key aspect of our project is ensuring that the promotion of health and wellbeing of the residents is prioritized and that the interventions developed are delivered in a way that meets the needs of residents in an inclusive manner.

# Abstracts – Oral Presentations

*Abstracts appear as submitted and have not been edited except for formatting.*

Morning - Wednesday, November 7, 2018		
	<b>Room 101</b>	
<b>Session A: Collaborations and engagement in health</b>		10:15am-11:55am

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## **Family, Friends and Support Networks of people living with HIV: Insights into knowledge acquisition and personal wellbeing**

Authors: A. Schroeder BA, MA candidate; Dr S. Mitchell Foster, BSC, MD, MPH, FRCS(C); Dr T. Fraser, BSc, MEd, Ph. D.; J. Mitchell MSw.; Violet Bozoki, Elder Advisor.

### Introduction:

Research looking at how family, friends and those forming support networks for people living with HIV has not advanced since the 1980's. The goal of the study is to look at the learning processes, programs and personal wellbeing for those supporting people living with HIV.

### Methods:

Data was collected through qualitative interviews. Stakeholders (n=4) were interviewed to ensure the questions were appropriate, informed and pertinent to the research goals. Qualitative interviews were then completed with individuals forming support networks for people living with HIV (n=5). Interviews were transcribed verbatim and cleaned for identifying information. Data was analyzed using Thematic analysis to draw out overarching themes. Additionally, Narrative analysis was used to weave together a cohesive story of care givers experiences in not only caring for individuals with HIV, but also caring for their own wellbeing.

### Results:

Preliminary results show that information on HIV is prevalent but knowledge surrounding the acquisition of information is limited. It is difficult to understand scientific explanations of HIV and discouraging in initial attempts. HIV is an all-encompassing disease and treatment can cause many complications. Understanding that the complications of HIV involve nutrition, mental health, and quality of life can be difficult. Caregivers must overcome fear and misunderstanding of HIV, which takes time and personal reckoning. They struggle to recognize the need for support for themselves and find it difficult to learn what kind of support networks they have access too (Roger, Migliardi, & Mignone, 2012).

### Conclusion:

Ongoing data collection will focus on the learning process and support networks of people living with HIV. The intention is to create accessible literature to help direct people to where they can find accurate, accessible information and what they need to look for.

Roger, K., Migliardi, P., & Mignone, J. (2012). Hiv, Social Support, and Care Among Vulnerable Women. *Journal of Community Psychology*, 40(5), 487–500. <https://doi.org/10.1002/jcop.20529>

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## **Tailored strategies to engage vulnerable populations in clinical research in Northern Health**

Authors: R Larstone, Ph.D.1 (presenting author/contact) and S Gray, Ph.D.1  
1 Northern Medical Program, University of Northern British Columbia, Prince George

Background: Researchers commonly encounter challenges achieving participant recruitment goals in clinical research<sup>1</sup>. Such challenges are amplified when engaging individuals from vulnerable populations who experience disproportionate rates of poor health and burden of disease<sup>2</sup>. Yet inclusion of under-represented populations in research is essential in order to address and ultimately reduce health disparities<sup>2</sup>.

Researchers may need to adopt multiple recruitment/retention (R/R) strategies when conducting research in clinical settings where patient care is prioritized and recruitment reliant on clinic referral<sup>1</sup>. Clinicians are well-situated to facilitate connections between researchers and participants.

**Objective:** Our objective is to describe clinician- and patient-focused research strategies supporting participant R/R in a clinical study investigating cardiometabolic risk in the context of enduring mental illness. In 2016 prior to opening patient enrolment we consulted with the Early Psychosis Intervention (EPI) clinical team, Northern Health, to negotiate research commitments, refine recruitment strategies and streamline research processes.

**Methods:** This study employs a longitudinal, case register design with a nested case-control study with age- and gender-matched controls. Descriptive statistics (patient group) were generated using SPSS.

**Results:** A total of 18 participants (age range 19-42 years; mean<sub>age</sub> = 24.78 +6.25; 7 females) were enrolled. 83.3%, or 15 of 18 participants, remain enrolled with one individual lost to follow-up and two withdrawn. All participants completed baseline measures, ten 3-month, eight 6-month, three 1-year and one 2-year follow-up, respectively.

Clinician-focused strategies supporting participant R/R include knowledge translation (KT) activities including study updates and directly engaging clinicians as collaborators. Participant-focused strategies center on KT and minimizing barriers to participation.

**Conclusion:** This study highlights 'lessons learned' when engaging patients and clinicians in clinical research at NH. Slow but continuous participant intake/follow-up has resulted in sustainable study procedures and high retention directly benefitting patient participants. Involving clinicians as collaborators prior to beginning research, ongoing KT and minimizing patient-level barriers to participation are essential to R/R. Future research directions are discussed.

1. Segre et al. (2011). J Res Nurs. 16: 321-332.

2. Erves et al. (2017). J Community Health 42:472-480.

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### **Prince George Cardiac Pulmonary Rehabilitation Program: A partnership between Academia, Northern Health and YMCA results in improved patient outcomes and decreased burden on the health care system**

Authors: Roots RK(1), Kinch C(2), Heidelbach D(2)

(1) Department of Physical Therapy, University of British Columbia (UBC), Northern and Rural Cohort, University of Northern British Columbia, Prince George, British Columbia (BC)

(2) YMCA of Northern BC, Prince George, BC

**Aim:** To evaluate the effect of the Prince George Cardiac Pulmonary Rehab Program (PGCPRP) on participant outcomes, program outcomes and system impact, in the first year of operation.

**Methods:** In 2016, UBC, Northern Health and the YMCA of Northern BC partnered to develop the PGCPRP-community-based comprehensive exercise and education-based cardiac and pulmonary rehabilitation programs. Evaluation was conducted using participant physical function and capacity data recorded during the program, participant satisfaction questionnaires, six-month follow-up questionnaires regarding continued physical activity levels, and UHNBC admissions data 12 months pre- and post-program.

**Results:** Analysis of data from the first nine months of PGCPRP found that 52% of cardiac participants demonstrated at least a 1-MET improvement in exercise capacity, and 77% of pulmonary participants had clinically meaningful improvements in their 6 Minute Walk Distance. These results have been associated in the literature to correlate with reduced mortality and disease burden. From the follow up questionnaire data, 54% of all participants were meeting Health Canada's recommended 150 minutes per week of moderate or vigorous physical activity, far exceeding the national average of 12%. Finally, 79% of participants reported the program was "effective" or "very effective" at helping them stay more physically active. Hospital admission data illustrated 85% reduction in bed days and 41% reduction in length of stay for the participants of the cardiac rehabilitation program and 82% and 59% reduction in bed days and length of stay respectively for participants of the pulmonary program. Statistically significant decreases in emergency department visits occurred post program for participants in both groups.

**Lessons Learned:** This initiative demonstrates the value of collaboration and the potential of partnerships to improve access to rehabilitation while resulting in significant improvement in patient outcomes and cost savings to the health care system, while also providing much needed clinical training opportunities for students.

## Developing an intergenerational cohousing opportunity for UNBC students and older adults in a Long-Term Care and Assisted Living Facility

Authors: Hemingway, D. (UNBC), Freeman, S. (UNBC), Jaswal, J. (NH), Barnes, S. (NH), & Price, A. (NH)

**Objective:** The interAGE project aims to facilitate social engagement, build meaningful relationships, and promote positive attitudes towards aging between students and residents. The overarching goal is to improve mental health and wellbeing of residents through increased social engagement with university students while providing students a unique opportunity to connect with older adults in a day-to-day living environment.

**Methods:** We report on the process used to develop the first intergenerational co-housing opportunity. This pilot was co-created in partnership between researchers from the University of Northern British Columbia (UNBC) and stakeholders from the Northern Health Authority. From water cooler conversations, to community consultation, and then decisions and actions, the development process for this project took nearly two years. Stakeholders were engaged in town hall discussion early in 2018 and findings were integrated into the final design of this project. Consultation focused on assessing enthusiasm for the project, motivation to participate in the project, opportunities to identify preferred activities or time commitment between students and residents, as well as expectations of different stakeholders and opportunity to voice any concerns they may have about the project. In fall 2018, the first cohort of UNBC students moved in.

**Results:** This presentation focusses upon the pilot co-creation process and will also provide an update on the current status of the pilot project. We will discuss how our dedicated advisory committee designed this project to meet the needs of the older adult residents, the university students, the co-housing location/facility, and the Northern Health Authority.

**Conclusion:** Together, a strong team of researchers and health care decision makers were able to co-design this co-housing opportunity aimed to meet the needs of all involved.

### Morning - Wednesday, November 7, 2018

<b>Session B: Health promotion and management</b>	<b>Room 205-206</b> 10:15am-11:55am
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## Stereotactic Ablative Radiotherapy for the Comprehensive Treatment of Oligometastatic Cancers (SABR-COMET): Results of a Randomized Trial

Robert Olson<sup>1</sup>, David Palma<sup>2</sup>, Stephen Harrow<sup>3</sup>, Stewart Gaede<sup>2</sup>, Alexander Louie<sup>2</sup>, Niels Haasbeek<sup>4</sup>, Liam Mulroy<sup>5</sup>, Michael Lock<sup>2</sup>, George Rodrigues<sup>2</sup>, Brian Yaremko<sup>2</sup>, Devin Schellenberg<sup>6</sup>, Belal Ahmad<sup>2</sup>, Gwendolyn Griffioen<sup>4</sup>, Sashendra Senthil<sup>7</sup>, Anand Swaminath<sup>8</sup>, Neil Kopek<sup>9</sup>, Jason Pantarotto<sup>10</sup>, Mitchell Liu<sup>11</sup>, Karen Moore<sup>3</sup>, Suzanne Currie<sup>3</sup>, Glenn Bauman<sup>2</sup>, Andrew Warner<sup>2</sup>, Suresh Senan<sup>4</sup>

1. BC Cancer - Prince George, Prince George, British Columbia, Canada
2. London Health Sciences Centre, London, Ontario, Canada
3. Beatson West of Scotland Cancer Centre, Glasgow, Scotland
4. VU University Medical Center, Amsterdam, Netherlands
5. Nova Scotia Cancer Centre, Halifax, Nova Scotia, Canada
6. BC Cancer Agency - Surrey, Surrey, British Columbia, Canada
7. Alfred Hospital, Melbourne, Australia
8. Juravinski Cancer Centre, Hamilton, Ontario, Canada
9. McGill University Health Centre, Montreal, QC, Canada
10. Ottawa Hospital Cancer Program, Ottawa, ON, Canada
11. BC Cancer – Vancouver, Vancouver, British Columbia, Canada

**Purpose:** The oligometastatic paradigm suggests that patients with a limited number of metastases may be curable if all sites of disease are eradicated with ablative therapies, such as surgery or radiation. However, randomized evidence in support of this paradigm is lacking.

Methods: We enrolled patients who had a controlled primary malignancy with 1-5 metastatic lesions, all of which were amenable to SABR. We stratified by the number of metastases (1-3 vs. 4-5) then randomized in a 1:2 ratio between palliative standard of care (SOC) treatments [Arm 1] vs. SOC plus SABR to all metastatic lesions [Arm 2]. The primary endpoint was overall survival (OS). A randomized phase II screening design was employed with a two-sided alpha of 0.20 (wherein a p-value <0.20 designates a positive trial) to provide an initial comparison of these two treatment strategies.

Results: 99 patients were randomized at centres in Canada, Scotland, the Netherlands and Australia. Median OS was 28 months in Arm 1 (95% CI: 19 - 33 months) vs. 41 months in Arm 2 (95% CI: 26 months to 'not reached'; p=0.09). Median PFS was 6.0 months in Arm 1 (95% CI: 3.4 - 7.1 months) vs. 12 months in Arm 2 (95% CI: 6.9 - 30 months; p=0.001). Grade  $\geq 2$  adverse events related to treatment occurred in 9% in Arm 1 and 30% in Arm 2 (p=0.022). There were 3 treatment-related grade 5 events in Arm 2, due to deaths from radiation pneumonitis (n=1), pulmonary abscess (n=1), and subdural hemorrhage after surgery to repair a SABR-related perforated gastric ulcer (n=1). There were no differences in overall mean Quality of Life (QoL) scores at 6 months (p=0.992).

Conclusions: SABR was associated with an improvement in OS, meeting the primary endpoint of this trial, and PFS was doubled. Grade  $\geq 2$

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### **Dietary Patterns of Ethnic Populations in Northern British Columbia, Canada: A Principal Component Analysis Study.**

Yaser Ahmed, MBCh (Hons), MSc1, Mamdouh M. Shubair, PhD2

1Research Associate, School of Health Sciences, University of Northern British Columbia, Prince George, British Columbia, Canada. Adjunct Lecturer, Faculty of Medicine, University of British Columbia.

2Associate Professor, School of Health Sciences, University of Northern British Columbia, Prince George, British Columbia, Canada.

Background: Dietary transitions and acculturation of different ethnic and immigrant subpopulations in western countries are associated with change in diet patterns and increased risk of obesity. Loss of the "healthy immigrant effect" and paradoxical adverse health outcomes have been observed in such populations, so further research exploring dietary pattern components and associated impact on health is critical.

Objectives: a) to explore dietary patterns for a convenience sample of adults from various ethnic backgrounds living in northern British Columbia; b) to examine the association between dietary patterns and healthy body weight status.

Methods: A cross-sectional survey instrument including a semi-quantitative Food Frequency Questionnaire (FFQ) was developed and used for data collection among 444 participants. Survey data were collected from March 2016 to March 2017.

Results: Two predominant dietary patterns were identified and termed "western" and "prudent" dietary patterns. There was a significant positive association between a "western" diet pattern and BMI (p < .05). Men had higher adherence to "western" diet patterns, and higher risk of overweight and obesity (p < .05).

Conclusion: Dietary acculturation and transition to western diet is associated with increased risk of obesity. Interventions promoting the adherence to a "prudent" dietary pattern and the retention of ethnic food habits are warranted.

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### **Implementation of routine offering of HIV testing for individuals admitted to acute care at Mills Memorial Hospital**

Denise Jaworsky 1,2,3,4, Holly (Gitsdi motx') Harris 5, Kyle McIver 4, Ciro Panessa 6, Mark Hull 2,7

1 Northern Medical Program, University of Northern British Columbia, Terrace

2 Department of Medicine, University of British Columbia, Vancouver

3 Institute of Health Policy, Management & Evaluation, University of Toronto, Toronto

4 Mills Memorial Hospital, Terrace

5 Gitksan Nation

6 Northern Health Authority, Terrace

7 BC Centre for Excellence in HIV/AIDS, Vancouver

#### Aim:

In BC, regional variations in HIV outcomes have been documented with poorer outcomes in northern regions. A comprehensive HIV testing program that includes community HIV education, testing and linkage to care is greatly needed in Northwestern BC. A program that offers routine HIV testing along with close follow-up and linkage to care for positive test results was first implemented in Vancouver with the potential to be implemented in other communities. This intervention led to diagnosis of HIV at an earlier stage and reduced HIV-related stigma.

The aim of this quality improvement project was to implement a similar program in Northwestern BC in order to increase HIV screening among individuals admitted to the Intensive Care Unit (ICU) and the Medical/Surgical ward at Mills Memorial Hospital.

#### Methods:

The routine offering of HIV testing to individuals admitted to acute care was implemented at Mills Memorial Hospital. Key steps included:

- 1) Formation of a community stakeholder group;
- 2) HIV education for nurses, physicians and community organizations;
- 3) Ensuring a local protocol for delegated follow-up of positive cases in partnership with public health;
- 4) Distribution of materials to encourage providers to offer tests and clients to ask for tests.

Evaluation of this quality improvement initiative included:

- 1) A survey on healthcare provider attitudes about HIV using the Health Care Provider HIV/AIDS Stigma Scale (validated 30-item scale);
- 2) Run-chart analysis of HIV testing rates in the ICU and Medical/Surgical unit.

#### Results:

Implementation of this program led to a modest increase HIV testing rates among individuals admitted to Mills Memorial Hospital. Secondary impacts of this program were increased HIV-related capacity in the local medical community and the formation of strong relationships among providers involved in HIV care.

#### Lessons Learned:

Capacity-building and education are essential components in the implementation of new programs in a rural setting.

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### **Management of Anconeus syndrome- Case Report**

Author: Sudhagar Gangatharam OT, CHT, CKTP

Lateral elbow pain is more common clinical presentation in our clinics, we often classify the lateral elbow pain as Lateral epicondylitis and treat them as lateral epicondylitis but we often fail to show progress to some of our clients; it is because we fail to evaluate the small muscle called Anconeus. Anconeus is classically described as a small, triangular muscle, which arises from the posterior surface of the lateral epicondyle of the humerus and passes obliquely to attach to the proximal posterolateral surface of the ulna Standing (2005). Amrahamsson (1987) found that altered motor control of Anconeus may contribute to gripping deficits in lateral epicondylitis. This case report describes about managing sub group of patients who failed to respond with traditional management for lateral elbow pain who has anconeus muscle involvement as a cause for lateral pain.it further describes how to identify these patients.

#### Reference :

Standing, S.. (2005) Gray's anatomy: the anatomical basis of clinical practice. 39th ed. Edinburgh: Elsevier Churchill Livingstone.

Abrahamsson, S,O., Sollerman,. C, Söderberg ,T., Lundborg ,G., Rydholm, U., Pettersson,H,.(1987). Lateral elbow pain caused by anconeus compartment syndrome. A case report. Acta Orthop Scand. Oct,58, 5,589-591.

## Morning - Wednesday, November 7, 2018

**Session C: Why all the data and measurement?**

**Room 208**

10:15am-11:55am

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**Explore the use of a comprehensive management approach, integrating Business Process Management (BPM), Business Ontology and Business Architecture to improve safety and quality of medication management in a multi-site health care organization.**

Author: Bonnie Urquhart, PhD candidate

Methods: A mixed methods approach was used to design business artefacts, gather participant's views, identify and prioritize quality improvement initiatives and measure results of implementation. Design of business artefacts using Layered Enterprise Architecture Design (LEADING Practice) standards which enabled the fulfilment of the first three of the six phases of the BPM lifecycle. This was achieved in researcher led workshops and the artefacts were documented using Microsoft Excel and iGrafx software applications. Semi-structured interviews were conducted with workshop participants and organization leaders to better understand the perceived benefits and challenges of using this comprehensive management approach.

Results: Process Identification, Discovery and Analysis phases of the BPM lifecycle were completed for Medication Management Processes in a healthcare organization that spans health promotion and prevention through to acute and long term care. The use of the business ontology enabled the development of a shared language and identification of relationships across business area silos.

Conclusions: Healthcare organizations have been described as complex adaptive systems. Quality improvement of healthcare processes at a systems level requires a shared language so processes are understood across and between business silos. Business ontology provides the ability to create a shared language and it can be combined with BPM and Business Architecture to identify, prioritize, and plan system wide improvement.

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**Medication Management Accreditation Support Tool: Guiding Staff through the “What”, “Why”, and “How” for Meeting Medication Management Standards**

Authors: Arlene Crawford and Julianna Ireland

Aims:

- To increase awareness of the Accreditation Canada's medication management standards
- To improve understanding of staff's responsibilities related to medication management compliancy
- To increase access to available resources to support staff in meeting compliancy criteria in their daily activities.

Methods:

- Utilized iGrafx software to create an interactive model through which all medication management standards and supporting resources could be accessed
- Used Microsoft Word to collect supporting information and compliancy evidence for each medication management Accreditation Canada standard
- Used facilitated discussions and recorded webinars to communicate the existence and purpose of the medication management interactive model
- Used the OurNH website to house the model and allow for universal access to all NH staff

Results Achieved:

- Able to draw clear relationships between medication management standards and the most up-to-date NH policies, processes, and supporting evidence by way of a “living document”
- Increased clarity for NH staff in terms of what the medication management standards are, and what the expectations are for compliancy
- Improved awareness of, and access to, the latest medication management support resources and tools that are available to support with compliancy
- Created opportunities for knowledge sharing with external partners
- Enabled contribution to the NH architecture
- Increased awareness of iGrafx functionalities



#### Conclusions / Lessons Learned / Next Steps:

- Due to the positive feedback received from NH Accreditation Team Leads, NH management, and operational staff, this approach may be used to develop a similar tool for each of the Accreditation Standard Sets that are applicable to NH
- Learned that there is a need for the development of standard templates to support Team Leads in collecting the Accreditation-related information in a standardized way

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#### **Transforming Primary and Community Care with Data – A Quality Improvement Initiative**

Author: Kaili Keough, Specialist, Primary and Community Care Program

**Aim:** In Northern Health we are committed to transforming our system to improve care and services. A significant part of this change has been implementing integrated primary and community care services to improve health outcomes, alleviate pressures on the acute care system and improve cost-effectiveness. Northern Health is developing a repository that integrates data from multiple clinical information systems. This provides an organization wide, standards-based information repository that captures a comprehensive view of a patient's journey. The pursuit is twofold: 1. to ensure data accuracy; 2. to measure and achieve organizational objectives.

**Methods:** Complete and accurate identification of patient's in and across electronic systems is essential for patient safety, and quality of care. At times patient identifying information is less than optimal, limiting the exchange of data across the organization. Quality data is a responsibility shared by everyone involved in documenting the patient's journey. It is crucial that registration policies are well socialized and the importance of complete and accurate data capture is clearly articulated. Development and maintenance of a data culture and quality framework is needed to support the provision of person and family centred care.

**Results:** Data remediation involves activities to analyze, correct and update incorrect data; these initiatives that run alongside business activities through a constant and attentive process have shown the most success. Improvement efforts initiated where teams self- identified the top priority in their patient panels have been successful. Sustainability is supported through the use of data to test and validate pain points.

**Lessons Learned:** Data remediation requires understanding of data at a high level. Identifying siloed projects and streamlining the efforts prevents redundancy and provides consistent messaging in data quality objectives. Change management is crucial to advance from awareness to sustainable activities.

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#### **Developing a Measurement Structure for Telegeriatrics in Northern British Columbia**

Authors: Georgia Betkus, BSc1, Shannon Freeman, PhD2, Tim Wood, BScN2, and Frank Flood3, Melinda Martin-Khan, PhD4

1University of Northern British Columbia, Interdisciplinary Studies

2University of Northern British Columbia, School of Nursing

3Northern Health Authority

4Univesiry of Queensland, Australia

**Introduction:** Northern Health's (NH) telegeriatric telehealth service has the potential to reach more rural seniors and improve access to specialist geriatric care in the north. To ensure the quality of this service and to support continuous quality improvement, a systems-level measurement structure needs to be developed.

**Objective:** Our team collaborated with Northern Health to investigate the appropriate measurement areas needed to help determine the quality of the telegeriatric service currently used in the north.

**Methods:** This project had three phases. In phase one we conducted a scoping review of literature (N=104 articles included) that produced themes of measurement with many smaller measurement domains within those themes. In phase two, these themes were divided into each category of the triple aim strategy utilized by Northern Health and presented at a one-day workshop with telehealth experts (N = 17 participants from 7 community organizations and 2 international telehealth agencies). Workshop participants voted on themes that they felt were most applicable to measuring all telehealth services at Northern Health. In phase three, we interviewed 11 key telegeriatric stakeholders whose backgrounds included management, finance, administration, health care provision, and information technology.

Results: We found that participants in phase two felt that the triple aim should move to a quadruple aim to include the Provider Experience. As well, a number of the measurement themes from the literature were not applicable to telehealth services in Northern Health. We also found that some measurement themes were not applicable to the telegeriatric service, specifically, while some additional measurement areas were required for this service. Conclusion: We have determined essential areas of measurement for Northern Health's telegeriatric service that are the building blocks for developing a systems-level measurement structure for this service.

Afternoon - Wednesday, November 7, 2018		
	<b>Room 101</b>	
<b>Session D: Health care access, flow and capacity management</b>		2:00pm-3:15pm

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### **Surgical Start Time for Gynecological Cases at UHNBC**

Authors: Dr. Marijo Odulio, Dr. J. Akhtar, Jodi Temoin, Shelley Movold

Aim: By June 2018, at least 50% of the Gynecological surgical slates at UHNBC will start surgery at 0800.

Methods:

1. Held a Building a High Functioning Team workshop to address the workplace culture issues.
2. Performed 2 change cycles to test effectiveness with improving the surgical start time:
  - i. To have the Surgeon in the room with the rest of the team and the patient at 0745 to:
    - provide leadership to the room and improve communication between team members
    - Assess whether the room was ready for the first operation in terms of equipment and other needs.
    - Perform the "time out"
  - ii. Continue to have the Surgeon in the room at 0745 and insert the IV before the patient enters the operating room.

Results: There was an overall improvement in start time for gynecological cases over the course of the project. Although 50% of the cases starting at 0800 was not met, the distribution of when cases started was much closer to 0800 than in the beginning of the project. Improvement was also seen in the time it took to position and prepare the patient for surgery in Dr. Odulio's OR. This highlighted the importance of having the surgeon assist with patient positioning. No improvement was seen with the insertion of the IV prior to the patient going to the operating room.

Lessons Learned: Good communication and teamwork were key to making improvements.

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### **Enhancing the transitions between Long Term Care (LTC) Facilities and UHNBC for designated LTC residents and for newly designated UHNBC ALCP clients transitioning into a LTC Facility.**

Presenting Author: Melanie McDonald

Objective: To enhance communication between LTC Facilities and UHNBC

Aim: To develop a communication tool between LTC Facilities and UHNBC that ensures continuity of care for LTC residents between LTC Facilities and UHNBC

- 1) Identifies the sending LTC facility with contact information and provides direction to LTC staff for sending pertinent resident documentation when sending a LTC resident to UHNBC for an acute episode.
- 2) Provides direction for UHNBC for sending pertinent resident documentation back to LTC Facilities.
- 3) Standardizes the required admission documents and process for UHNBC ALCP clients transitioning from UHNBC to LTC facilities.

Methods:

- LTC Leadership team identified communication challenges between LTC facilities and UHNBC.
- Meetings were conducted with UHNBC Social Workers, Clinical Practice Leaders, Unit Clerks and nursing staff to review current transfer documentation.
- A LTC Facility-UHNBC Transfer Envelope was developed and revised several times based on input from LTC and UHNBC stakeholders.
- A PDSA cycle was initiated between PG LTC Facilities and UHNBC on FMU.
- Further LTC Facility-UHNBC Transfer Envelope revisions were completed based on continuous feedback.
- Phase 2 rollout of the LTC Facility-Transfer Envelope included all 5 LTC Facilities, IMU, FMU and SSMU.

- Phase 3 rollout will include the rest of UHNBC and will hopefully be completed in the next month.

Results achieved: A LTC Facility-UHNBC-LTC Facility Envelope was created and implemented which has facilitated the following:

- 1) The right information is with the right resident/patient at the right time!
- 2) Communication is improving between LTC Facilities and UHNBC.
- 3) The process for sending and receiving LTC residents has been streamlined.
- 4) The process for transitioning UHNBC ALCP patients into LTC facilities has been clarified and simplified.

Conclusions and Lessons Learned:

- Many stakeholders contributed to this project.
- Several revisions based on continuous feedback from stakeholders significantly improved the project.
- A very lengthy and time consuming process to achieve and roll out this LTC Facility-UHNBC Transfer Envelope.

Community Partners and Stakeholders Included:

- PG LTC Facilities: Parkside Care Home, Rainbow Lodge, Jubilee Lodge, Gateway Lodge and Simon Fraser Lodge.
- PG LTC Leadership Team consisting of LTC Director, Managers, Care Coordinators, Clinical Practice Leaders, Unit Clerks, Social Workers, Occupational Therapists, Dietitian and Nurses.
- UHNBC Partners consisting of Directors, Managers, Clinical Practice Leaders, Social Workers, Unit Clerks, Occupational Therapists and Nurses.

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### **Complex Care Predictive Bed Modeling**

Authors: Jim Condon, Famarz Kashanchi

Aim: To predict the number of complex care beds Northern Health will require over the next 25 years.

Methods: First the process of clients entering and receiving service in complex care is mapped. This includes the waitlist, admission and length of stay phases. We then run a simulation on top of the process model with data inputs from our clinical system RAI (Residential Assessment Instrument) and population projections from BC stats.

The input into the simulation model is a rate based model that takes the current state of waitlist/admission numbers in complex care and multiplies those by the population projections in each LHA (Local Health Area) to get the number of arrivals into our waitlist for each year. The adopted methodology was informed by a multi-disciplinary group.

We ran the simulation model for multiple scenarios.

1. Status Quo: Number of beds required, if we don't change our current practice
2. Waitlist arrivals only meet NH Criteria: Number of beds required, if we only admit clients that meet Northern Health Complex Care Admission Criteria
3. Waitlist arrivals only meet BC Criteria: Number of beds required, if we only admit clients that meet British Columbia Complex Care Admission Criteria

Results:

There are 3 main outputs that we use to calculate the number of beds required for NH in Complex Care.

1. Number of clients added to the waitlist
2. Number of clients treated in Complex Care
3. Number of clients deceased while on the waitlist

From the above we calculate the number beds NH requires in each of its LHAs from 2017 to 2035.

**Afternoon - Wednesday, November 7, 2018**

**Session E: Working together for person, family and community centred care**

**Room 205-206**

2:00pm-3:15pm

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**Unity, Building Relationships, and Enhancing the Healthcare Experience of Indigenous Peoples in Northern BC**

Presenters: Julia Petrasek MacDonald and Louella Nome

**Aim/Background:**

The Aboriginal Health Improvement Committees (AHIC's) are action-oriented, collaborative groups that work together to support health and wellness for Indigenous people, families and communities in northern BC. AHICs are made up of representatives from local First Nations and Indigenous communities and organizations, the First Nations Health Authority, Northern Health, and health sectors. The AHICs develop local initiatives to engage in dialogue with health service providers and Northern Health, providing advice and guidance on an array of concerns and issues faced in their respective communities.

The Prince George and Area AHIC first mentioned a project to develop a welcome sign/art installation for the University Hospital of Northern BC in spring 2015. The land the hospital space sits upon has been identified as a portion of IR#1, and for that reason the committee decided to pursue an art installation with a welcome in Carrier to recognize that history and acknowledge the Lheidli T'enneh.

The overall intent of the welcome sign is recognition and acknowledgement of Indigenous peoples in health-care facilities, while also offering a learning experience to non-Indigenous peoples entering the hospital.

**Methods:**

The AHIC created a sub-committee to undertake the organization and planning of the Welcome Sign project. With guidance from the Lheidli T'enneh Band Council, the sub-committee began developing a work plan to create an art installation with a welcome message in Carrier to be placed in UHNBC. The sub-committee put out a call for local Indigenous artists to enter their art pieces for a chance to be selected to create the welcome sign for the AHIC. Carla Joseph, a local Métis artist, was chosen. During the summer of 2017, Carla created a beautiful art piece with a welcome message in Carrier.

**Results:**

On February 23rd, 2018, the Welcome Sign was unveiled at UHNBC. The event had speakers from the AHIC, including the AHIC Chair Louella Nome, Lheidli T'enneh Chief Dominic Frederick, and Carla Joseph - artist of the Welcome Sign.

**Lessons Learned:**

This unveiling and project marks a huge step toward a new relationship going forward between Indigenous communities and Northern Health that will ultimately enhance the healthcare experience of Indigenous peoples entering UHNBC, specifically the people of this territory and surrounding communities. This project is a gateway to beginning conversations about improving the healthcare experience and creating new partnerships.

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**Strengthening FAMILIES in Person & Family Centred Care (PFCC)**

Presenters: Kim Dixon CPSM (F), Heather Megchelsen CPS (F) and Gail Rutledge CPS (F)

**Objective:**

To increase stakeholder confidence in the non-clinical mental health best practice intervention of family peer support and strengthen FAMILIES in PFCC.

**Methods:**

Demonstrate national standards of practice (knowledge, competencies, code of conduct) for experienced family peer supporters to achieve Peer Support Canada (PSC) Family Peer Supporter certification.

## Results/Progress:

- May, 2014 BC Schizophrenia Society Prince George/Northern Interior presents on family peer support in mental health trauma informed practice at the first PSC conference.
- April, 2016 Kim Dixon becomes the first PSC certified Family Peer Supporter.
- 2017 Heather Megchelsen and Gail Rutledge become the second and third PSC certified Family Peer Supporters respectively.
- January, 2018 Kim Dixon becomes the first PSC certified Family Peer Support Mentor.
- May, 2018 Kim Dixon presents at the third PSC conference looking at the peer support competencies (interpersonal relations, demeanour, communication, critical thinking, hope, self-management & resiliency, flexibility & adaptability, self-awareness & confidence, initiative & commitment, teamwork, continuous learning & development) and how Mentors coach Supporter candidates to reflect upon, and deepen their practice as Peer Supporters.
- June, 2018 Kim Dixon and Heather Megchelsen invited to join PSC team to design a national Family Peer Supporter community of practice.
- September 2018 ongoing Kim Dixon and Gail Rutledge provide FAMILIES in Residence and certified family peer support at the the UHNBC and GR Baker Memorial Hospital.

## Conclusion:

Prince George/Northern Interior currently have the only team of PSC certified Family Peer Supporters in Canada. UHNBC and GR Baker Memorial Hospital have FAMILIES in Residence with PSC certified Family Peer Supporters on site every week.

Capacity to grow number PSC certified Family Peer Supporters who have demonstrated national standards of practice and FAMILIES in Residence throughout the north.

## 154

### **Indigenizing social work ARTivism (circles for healing)**

Presenter: Si Transken

Objectives: Multiple organizations in the Prince George area (Big Brothers/ Big Sisters, Baldy Hughes Recovery Centre, Kikino, Activators, Elizabeth Frye) have been inviting us (Community Arts Council, Indigenous Arts Council, and myself (a social work scholar and practitioner who has been certifying as an art therapist with the Vancouver Art Therapy Institute) to do workshops. We have been doing this outreach for almost three years. Each of the groups invited us in for 3 hour sessions over a five week period. Our intentions have been to explore how art therapy centered in the seven teachings and a somewhat eclectic grassroots approach could be useful to multiple groups of disadvantaged people. A unique aspect of our work is that we are a team of artists, therapists, male and female, professionals and grassroots activists. We are Indigenous and settler and making sure that we are informed about the truths of our community, our province, our nation and -- regardless of the identities of the participants -- (usually more Indigenous participants but often a mix) we begin from the center point of Indigenous world views.

Methods: Each time we considered facilitating a group we did our research to find out as much as we could about the organization, the staff, the clients, the space, the interests and possible backgrounds of the potential participants. We ongoingly sought input and feedback from each client about what kinds of art supplies, imagery, themes, modes of expression might be interesting to them. We made sure to inform everyone that art therapy is about process and not product. Carla Joseph, a local professional Indigenous artist guides the group with the seven teachings and some specific tasks. We all (a representative from Community Arts Council, sometimes other artists, staff from the participating agencies) did our alert best to be open to whatever directions the groups gave us. We did not seek sameness from the participants in any group. Art therapy approaches encourage individual expression (sometimes the drum making, journaling, paintings, wooden box finishing caught some participants attention - and other moments they could invest their attentions in other projects). Participants always had at least three options/ projects to engage with and expressed their appreciation for this respect of their diversity. We are there to actively set them up to experience successes. We are there to encourage, affirm, celebrate them and their wishes to grow and learn new ways to express their emotions. Our tasks as facilitators included making sure that everyone had one of our team assisting with 'technique' and bringing 'bits and bits' (beads, yarn, hoops for dream catchers) to the sessions that could help further and deepen the expression of each participant.

Results: We have been invited back to each agency and we have some agencies looking to find ways to expand the programing we have been offering. Other indicators of success: participants arrived on time, stayed until the end of the three hours, actively participated. We had 'closing ceremonies' or 'graduation ceremonies' to highlight the accomplishments of each person. The focus was as much on what they shared in words as on the objects they

embellished and shaped. We sought feedback from staff and management months after the workshops and found that they still had very positive regard for what had happened in their agencies.

Conclusion: We note with sadness that these processes are very healing and energizing for participants but that 'art therapy' and 'cultural practices and enrichments' are not always seen by funders as belonging in the realm of 'health' and 'healing'. The agencies we have been working with and the participants we have had the privilege of engaging with have certainly affirmed that these sessions have been helpful for their self esteem, courage, sense of self, problem solving tools, ways of relating to their past/ present/ future. The practices we hope they are carrying on in their futures (drumming, journaling, art making, working with wood, sharing their voices with others from their community...) are ways they believe they can manage their emotions which are more wholesome and health promoting than some of their previous choices.

<b>Afternoon - Wednesday, November 7, 2018</b>		
<b>Session F: Human resources and careers in health care</b>	<b>Room 208</b>	<b>2:00pm-3:15pm</b>

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### **Retention of Rural and Remote Millennial Nurses**

Authors: Lara Frederick

Aim: To understand how health authorities and managers retain rural and remote millennial nurses in healthcare.

Methods: Through understanding and exploration of current literature and knowledge, millennials' qualities and generational characteristics are explored and strategies are suggested to retain rural and remote millennial nurses in healthcare.

Strategies:

- Focus on more than salary; focus on meeting emotional, physical and social needs
- Give Millennials an early sense of purpose
- Implement flexible schedules for a work-life balance
- Provide opportunities for growth and experience
- Create engagement and project opportunities
- Give feedback through formalized reviews

Implications:

- Millennial nurses need to be engaged and given opportunities for growth.
- Millennial nurses need to feel connected to the organizational purpose.
- Millennial nurses need to be retained beyond the three-year mark for long term retention to be established.
- Managers need to invest early in understanding their millennial nursing generational influences.

Lessons Learned:

Understanding generational influences will help health authorities and managers target strategies to retain millennial nurse professionals. More research is needed to 1. Explore impacts of management styles and links to retaining millennial nurses; 2. Highlight strategies for targeted recruitment and retention of this generational cohort in nursing.

**125**

### **The Virtual Healthcare Travelling Roadshow**

Authors: Sean Maurice and Sonya Kruger, Northern Medical Program

Evidence shows that students of rural origin are more likely to practice in a rural location; however, they face significant challenges in the pursuit of healthcare training.

Since 2010, the Healthcare Travelling Roadshow (HCTRS) has been inspiring rural youth to consider healthcare careers through an interactive, interprofessional, near peer teaching approach (<https://www.unbc.ca/healthcare-travelling-roadshow>). The HCTRS brings together health professional students from across B.C. to showcase their respective fields at high schools. This program has expanded substantially from its inception. To date, this initiative

has visited some 8500 youth in 43 rural communities, involving 140 healthcare students from 20 different healthcare programs. However, there remains a need for engagement on a more regular basis with rural high schools.

To meet this need, we have developed a Virtual Healthcare Travelling Roadshow website, which will host Career Spotlight videos highlighting different health professions. Consistent with the near peer teaching approach used in the HCTRS, these videos are produced by healthcare students, and feature individual students and their journey to their chosen profession. Brief career descriptions provide context for each video, and links are provided to relevant B.C. training programs.

This website will be a platform to provide a healthcare career overview to rural youth and also a mechanism for engagement with high schools. Additionally, it will further connect us with our healthcare professional program partners. We are tracking website usage for program evaluation and improvement.

Key words: Rural University-High School Outreach, Interprofessional Education, Community Engagement

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**Engaging rural youth in health care career possibilities: Adventures in Health Care “I know what I want to study, but I don’t know what I want to do”**

AUTHOR: Ron J Davis, Rotary Club of Prince George, Yellowhead

**OBJECTIVE:**

The health care sector is an important part of the socio-economic fabric of northern British Columbia, creating employment for a highly skilled workforce while addressing social challenges faced by residents. Given the importance of health care, there is a strong interest to strengthen linkages with this industry and our youth.

**METHODS:**

Yellowhead Rotary has developed a program that focuses on health care; a showcase of career pathways and educational opportunities. Collaborating with AiMHi, School District 57, Northern Health Authority, the College of New Caledonia and the University of Northern British Columbia, this comprehensive program brings together youth from all over British Columbia for four days of hands on activities introducing students to several high needs positions in the region.

**RESULTS:**

The program has been live for two years with a total intake of 82 grades 10 and 11 accepted from over 220 applicants.

Exit interviews with participants rated the program with an approval rating over 80%, 75% indicating that they would be re-assessing their educational plans leading up to graduation.

Communication continues but most are still in high school. Indications are that those that graduated this spring are enrolled at C.N.C. or U.N.B.C. After the add/drop period in late September both agencies will then identify the “Health Care” graduates in their systems. Besides the increased awareness that the students experienced, the networking between the collaborating agencies has been a surprising unintended consequence which has led to development of new partnerships.

**LESSONS LEARNED:**

An unmet need for youth to learn more about what is possible in the north has been discovered. The challenge now is to engage more youth by expanding the capacity of the program to meet the demand. In addition, a comprehensive monitoring system to follow the student’s post-secondary activities is necessary.

**Afternoon - Wednesday, November 7, 2018**

**Room 101**

**Session G: Treatment and management: Learning from analysis, evaluation and teams**

3:30pm-4:45pm

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**Palliative radiotherapy near the end of life for brain metastases from lung-cancer: a population-based analysis.**

Authors: Roel Schlijper, MD, FRCPC<sup>1</sup>; Ian Fraser, BMBS, FRCR<sup>2</sup>; Jacqueline Regan<sup>3</sup>; Shilo Lefresne, MD, FRCPC<sup>2</sup>; Robert Olson, MD, FRCPC, Msc<sup>1</sup>.

1: BC Cancer, Radiation Oncology, Prince George

2: BC Cancer, Radiation Oncology, Vancouver

3: University of British Columbia, Vancouver

Introduction: Brain metastases occur in 10% of lung cancer cases at the time of diagnosis and of all patients with brain metastases, 40-50% has a lung primary. Brain metastases have a major impact on prognosis and quality of life. This population based study investigates the patterns of use of radiotherapy for brain metastases in lung cancer patients who died within 4 weeks of radiotherapy.

Methods: All lung cancer patients who received radiation therapy in British Columbia for brain metastases between January 1, 2014 and December 31, 2015 were identified. Patient and treatment characteristics were collected. Association analysis and multivariable logistic regression analysis were performed to assess associations between patient or treatment factors and death within 4 weeks of treatment.

Results: In total, 740 individual patients were identified, who underwent a total of 826 courses of radiation therapy to the brain. Of these 740 patients, 11% (n = 92) died within 4 weeks of start of treatment. Associations were found between most investigated factors and death within 4 weeks of treatment. On multivariable analysis, chemotherapy (OR = 0.49, 95% CI 0.27 – 0.87, p = 0.015), radiotherapy with more than 5 fractions (OR = 0.12, 95% CI 0.04 – 0.34, p < 0.001) and age between 70-80 years as compared to age between 60-70 (OR = 0.37, 95% CI 0.14 – 0.96, p = 0.04) are all associated with a lower odds of death within 4 weeks of radiation.

Conclusion: In our study population, 11% of patients with brain metastases from lung cancer are being treated in the last 4 weeks of their lives. Several factors can be identified that are associated with this and might be helpful for physicians choosing for which patients it may be wise to omit radiotherapy for brain metastases, especially whole-brain radiotherapy.

**158**

**Retrospective Evaluation of Clostridium Difficile Infection Risk Factors and Management at a University Teaching Hospital in Northern BC.**

Authors: K Bellefeuille, BSc(Pharm), ACPR; A Nunley, BSc(Pharm), ACPR; A Rahier, BSc(Pharm), ACPR

Objective: The primary objective of this research project was to assess if management of healthcare associated C. difficile infections (CDI) at the University Hospital of Northern BC (UHNBC) was compliant with provincial and national standards in the absence of Health Authority CDI management support tools. The secondary objectives of this research project was to a) identify the proportion of CDI patients who had modifiable risk factors for CDI and b) patient outcomes including length of hospital stay, mortality rate and recurrence rate.

Methods: Retrospective chart review of patients from April 1st, 2010 to March 31st, 2016 with C. difficile positive stool samples that also met criteria for healthcare associated C. difficile infection.

Results: A total of 257 patient cases were identified by medical records (HIMS), of which 178 were included for review. The investigators found that the compliance rate to provincial and national standards at UHNBC was 32%. Of the 178 patient cases reviewed 170 had at least 1 modifiable risk factor. The median length of hospital stay was 23 days and mortality rate was 14%. Twenty-five of the study episodes were recurrent cases and 24 patients had a recurrence after the study episode.



Conclusion: The compliance rate with provincial and national standards was found to be below the pre-determined acceptable rate of 80% and modifiable risk factors were identified for the majority of patient cases. The results from this study support development and implementation of a CDI management protocol and order set at UHNBC.

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### Group Medical Visits (GMV) for Chronic Obstructive Pulmonary Disease (COPD)

Authors: Dr. Denise McLeod, JoAnn Tordsorf (MOA), Renee Pigeon (RT), Roberta Miller (Primary Care Team), Annick McIntosh (Primary Care RN), Karen Gill (Practice Improvement Coach)

Aim:

To increase patient confidence in self-management as assessed by a survey administered at the beginning of the first GMV and another done at the end of the last GMV.

Methods:

The clinical team met with a Respiratory Therapist prior to the GMVs to update their knowledge of resources available to patients with COPD. From this information the team came up with the agendas for 3 GMVs to be held over a series of several months. Patients with COPD were recruited from the patient registry.

Results:

2 of the 3 scheduled GMVs were done and there is ongoing interest in a third one.

1. One patient dropped out Dx with cancer
2. On patient added - spouse of COPD participant
3. Excellent engagement between patients sharing information and challenges. (They were more up front with each other and called each other on things.)
4. BONUS: during wildfires nurses took it on their own initiative to follow up with patients at home or by phone to review & assess patient medication management and well being during the poor air quality times
5. Review of CAT score every time patients come helps initiate a dialogue from the patients on how they think they are doing.

Lessons Learned:

1. I believe a community Respiratory Tech would be a very big asset to the team both in the sessions and for one on one follow ups.
2. Team education prior to undertaking the teaching made things very smooth.
3. Do not do a project over the summer. It is difficult on staff and the patients.
4. I believe a 3-4 month 3rd session is better, patients are asking for it, so I believe turn out will be better.
5. We need to do better slides.

Afternoon - Wednesday, November 7, 2018		
	Room 205-206	
<b>Session H Using gardening and horticultural therapy in long term care: a patient-oriented research example</b>		3:30pm-4:45pm

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### Co-Creating Meaningful Patient Oriented Participatory Research on Gardening and Horticultural Therapy in a Long-Term Care Facility

Authors: Rebecca Ferris, BA , Shannon Freeman, PhD , and Sandra Barnes

Introduction: Older adult residents in a Long-term and Assisted Living care facility in northern British Columbia partnered with researchers from the University of Northern British Columbia and representatives of the Northern Health Authority to inform development and planning of new gardening and horticulture program focused on promotion of the natural environment in their facility.

Objective: This co-directed study follows a participatory approach as our inter-disciplinary team worked with older adult residents to define the scope of this project.

**Methods:** Together, residents and researchers conducted an environmental scan and researchers are currently conducting a knowledge synthesis of existing horticulture practices in long term care facilities. Weekly meetings with residents in their facility were conducted to ensure that the project is resident-driven. This involves co-searching online, identifying search terms, and scanning of retrieved resources. Though this project began with one patient partner expressing her own desires, it has expanded to a larger group of residents. They are enthusiastic to undertake a resident-driven approach to researching and designing a project to improve opportunities for horticulture for themselves and other residents.

**Progress:** This poster presentation will discuss the co-design process of patient-oriented research employed on our project in a long-term care facility setting with a focus on methods and benefits of engagement with patients.

**Conclusion:** A key aspect of our project is ensuring that the promotion of health and wellbeing of the residents is prioritized and that the interventions developed are delivered in a way that meets the needs of residents in an inclusive manner.

<b>Afternoon - Wednesday, November 7, 2018</b>		
	<b>Room 208</b>	
<b>Session I: Engaging audiences using online education and training</b>		3:30pm-4:45pm

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**Healthy Aging CORE: Collaborative Online Resources and Education**

Authors: Barbara McMillan

**Aim:** This initiative builds on research, outreach, and consultations undertaken in BC aimed at better understanding and supporting the work of community based seniors’ services – non-medical programs that support older adults to remain well, socially connected, and independent. The outreach and consultations contributed to the development of a province-wide network of community based seniors services - the “CBSS sector” - and the aim of this initiative is to strengthen this sector through the development of an on-line platform that will:

- connect CBSS organizations and stakeholder groups across sectors, with each other, and with research and academic communities
- foster communication, coordination, collaboration, capacity, cohesion, and effectiveness
- create opportunities in user-centered program design and evaluation
- support intra- and inter-disciplinary collaboration
- demonstrate the relationship between academic research and real-world impact
- leverage evidence based approaches and research to support program and policy development

**Methods:** Extensive outreach, research, and consultation to: engage potential users in CORE development; determine CORE content and training priorities; and identify relevant resources (studies, program models, toolkits, funding information, etc). Establishment of CBSS Leadership Council to ensure community guidance and accountability. Development of funding partnerships to ensure sustainability.

**Results:**

- Outreach and consultations created new opportunities for CBSS organizations to connect with each other and increase communication and coordination
- Extensive connections made with academic, research, and other stakeholder groups, and new partnerships formed
- New sector strengthening strategies planned and implemented
- Comprehensive on-line platform in development for planned public launch January 2019

**Lessons Learned:**

- Importance of concurrent engagement at multiple levels: provincial, regional, municipal, community
- Importance of sensitivity to diversity and inclusion, eg. rural/urban, north/south, LGBTQ2, Indigenous, disability
- Importance of focus on building community through both in-person and on-line activity
- Importance of being community driven and making community accountability a priority

**Tensioned interfaces: Unsettling Settler spaces and places in online education and training?**

**Author:** David Loewen

- Doctor of Education student, Athabasca University, AB
- Lead, Community Engagement, Education, and Evaluation, Indigenous Health, Northern Health

**Objective:** This presentation is intended to share and discuss my current doctoral research in education which focuses on critical self-reflection – as a white, male, Settler in Canada – with a focus on online education and training. My research has been guided by the Truth and Reconciliation Commission (TRC) reports and 94 *Calls to Action*, with multiple calls advocating education for non-Aboriginal people in Canada. These calls are backed by appeals from the TRC to move from apologies to concrete actions, including personal action in building mutually respectful relationships and rebuilding trust and respect.

**Methods:** My research is utilizing narrative inquiry, critical autoethnography, and self-study to critically interrogate my experiences, as well as inherent privilege and standpoint, within education with a focus on online education and training. My experience in online education and training spans almost two decades as a student, instructor, course designer, curriculum developer, and researcher – in northern educational institutions, communities and workplaces.

My current research stretches beyond education and training into other intersecting identities, for example: citizen, practitioner, father, and a professional navigating multiple interfaces, including between northern cultures, northern communities, and multiple organizations, professional practices, and histories (to name a few). Narrative inquiry is a qualitative research method utilized to inquire into personal experiences and artifacts (stories, journals, photos, etc.) to explore how people create meanings in their lives through narratives. Autoethnography is a method that critically engages and reflects upon the self (auto) within cultures (ethno), and produces a product, generally written (graphy).

**Progress of Project:** My dissertation proposal is near oral defence. Research for the full dissertation is ongoing, with the goal of dissertation defence and program completion by summer 2019. Over the past three years, I have presented my research in various forums and conferences.

**Lessons learned:** My research is linked to training, practices, and realizing cultural safety, respect, and humility in healthcare services – of which practitioner self-reflection is a key component. It is also guided by the TRC *Calls to Action* outlining the critical need for focused education for non-Aboriginal peoples in Canada. Yet, as much research demonstrates, simply learning information or facts does not necessarily result in behavioral or personal change. Critically engaging privilege (specifically white Settler male) at personal, structural, and cultural levels has been vital to my research.

Morning - Thursday, November 8, 2018		
<b>Session A: Lessons in improvement and implementation</b>	<b>Room 101</b>	9:45am-11:25am

**Wrinch Memorial Hospital, Reorganization - Ripples and Reflections**

Authors: Shar McCrory & Selina Stoeppler

AIM/Objective:

To educate and inspire. Discuss the benefits of Quality Improvement training and implementing Quality Improvement projects. A focus on 5s projects having a positive effects on patient care. Highlights of benefits of Quality Improvement training and the “ripple” effect it has had at Wrinch Memorial Hospital.

#### Methods:

Initially implemented and sustained a large 5S project leading to multiple other 5S projects. The initial project "Rooms to Move" has had a ripple effect within our facility and has been shared with other regional Northern Health sites who have expressed interest in modeling the same concept. At Wrinch Memorial Hospital, two 5S projects have been completed so far and four more projects in process.

In 2016, we began our Quality Improvement learning journey, obtaining our Green Belts in 2017. A Quality Committee was formed in 2017.

#### Results:

The initial project which was a 5S "Rooms to Move" received 100% satisfaction from staff and has been modeled at other sites.

The Wrinch Quality Committee has led to producing a Quality wall on the acute ward, prioritizing all Quality projects at our site, and mentoring as well as implementing training for more staff on various belt levels. Since our Green Belt certification, we have presented at Northern Health conferences, provided in-service presentations and obtained BC Patient Safety Quality Academy certification.

#### Lessons Learned:

Quality Improvement ROCKS and the experts are integral in all projects. The experts are the front line workers who LIVE their roles and know where improvement opportunities are needed. Our QI training has empowered us with the knowledge to be change management facilitators and continually make a difference to the patient experience.

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### **The Move is On! - 100 Mile Hospital (OMH) Mobility Plan**

Authors: Natalie Kulyk (presenter) & Teressa Allwood (presenter), (Submitted by Morag Green)

Project aim: 100% of patients (unless medically contraindicated) in OMH will mobilize 3 times a day minimum by June 2017.

#### Methods:

Find creative ways to increase patient mobilization. Culture change was needed for all staff to see this priority in their daily role. By increasing patient mobility, length of stay and complications, directly or indirectly resulting from immobility, would decrease. Also a decrease in the number of patients requiring residential care instead going home or to a lower level of care.

- Recognizing culture surrounding client safety.
- Provide education to resolve fears and build confidence in the fall protection program.
- Recognize fears/ education needs
- Daily huddles: initiated/education.
- All patients have up to date mobility care plan.
- Robust falls protection care plans.
- Least restraint policy: education and enforcement.
- Whiteboards: -head of bed with specific mobility plans
- Patient assignments divided evenly: LPN and RN's would have a complement of acutely ill patients and frail patients who needed more assistance.
- All healthcare team involved in the project: allied health/physio/ physicians/ nursing.

Results (measured 2016/17 & 2017/18):

- 21.6% decrease in length of stay
- 58% decrease in number of patients requiring residential and/or assisted living
- 100% of staff involvement in mobility
- Increased staff engagement with true least restraint and falls care planning.
- Improved access and flow.
- Family satisfaction with patient independence on discharge.
- Improved patient functioning from admission baseline

#### Lessons learned:

- Increasing patient mobility has a direct correlation to length of stay
- Improves patient quality of life
- Staff engagement / culture change takes consistent, ongoing messaging and reminders
- Strong leadership, who will do the work with the staff is key
- A written detailed plan on the whiteboard and care plan is vital
- Giving the responsibility to and making staff accountable for mobility planning increased buy in
- Staff became accountable to each other to ensure consistent results.

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### **Development and Trial of a Standard Implementation Plan to Move Evidence into Practice in Northern Health**

Authors: Linda Axen, Tamara Checkley, Beth Ann Derksen, Megan Ellis, Tanis Hampe, Tammy Hoefler, Laura Johnston, Hilary McGregor, Stacey Patchett, Dori Pears, Andrea Starck (Northern Health)

Aim: Implementation of evidence-based practices in healthcare settings is challenging (Barnett, Vasileiou, Djemil, Brooks and Young, 2011) and made more complicated by the role of context (Li, Jeffs, Barwick and Stevens, 2018). The aim of this project is to develop and trial a standard implementation plan template in Northern Health.

#### Background:

With an established process for developing evidence-based documents like policies, clinical practice standards and order sets, Northern Health staff and clinicians have become confident in the development of these guidance documents and packages. What we face in Northern Health is difficulty implementing and sustaining these evidence-based practices.

The interface of Northern Health's regional program structure that has the mandate for regional quality standards and the geographically-based operational structure where service delivery and evidence-informed practice come to life highlights the need for a standard, clear, supportive implementation process.

#### Methods:

A session that convened regional program leads, operational leads, and organizational supports for knowledge mobilization resulted in a process model for planning, prioritizing, developing, implementing, evaluating and sustaining quality-focused initiatives. Subsequently, a development team was formed in Northern Health whose members reviewed literature on implementation science, brought together stakeholders to identify enablers and challenges and to seek feedback, and created guidance for development and approval of policy, procedure and clinical practice standards and a draft implementation plan template. The implementation plan template is currently being trialled in the organization.

#### Results and Lessons Learned:

This presentation will introduce the journey and the implementation plan template and supporting documents, and discuss the results and learnings from the trial of these documents with quality initiatives in Northern Health.

#### References:

Barnett J, Vasileiou K, Djemil F, Brooks L, Young T. (2011). Understanding innovators' experiences of barriers and facilitators in implementation and diffusion of healthcare service innovations: a qualitative study. *BMC Health Services Research* 11(1):342. <https://doi.org/10.1186/1472-6963-11-342>

Li, S., Jeffs, L, Barwick, M. & Stevens, B. (2018). Organizational contextual features that influence the implementation of evidence-based practices across healthcare settings: A systematic integrative review. *Systematic Reviews* 7:72 <https://doi.org/10.1186/s13643-018-0734-5>

## How Northern Health Staff are Using Evidence - A Look at the Policy Office Data

Author: Linda Axen, Regional Manager Policies and Clinical Practice Standards

**Objective:** NH Policies and Clinical Practice Standards are concrete examples of regional evidence-informed guidance. Viewing the collected data through an information hierarchy lens allows us to better understand how NH staff are accessing and using regional policies, clinical practice standards and clinical skills to support their work.

**Methods:** Consistent data collection gives us an inside peek into how NH staff are accessing regional policies, clinical practice standards and clinical skills. Data collection methods, data revealing average views per day, and other exciting metrics will be shared. The relationship between these metrics and staff engagement with the use of evidence (evidence-informed-practice) will be presented.

**Conclusion:** This presentation will be of interest to anyone who may be curious about Northern Health regional policies and clinical practice standards; has considered utilizing policy data for a quality improvement project or has a research question relevant to regional guidance documents.

<b>Morning - Thursday, November 8, 2018</b>		
<b>Session B: Advancing primary and community care</b>	<b>Room 205-206</b>	9:45am-11:25am

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## Public Health Nurses' Experience of Collaboration with Primary Care Providers in Northern British Columbia

**Author:** Sara Pyke MScN, RN(C), CCHN(C)

**Objective:** The purpose of this study was to learn more about how public health nurses (PHNs) collaborate with primary care providers, as these professionals will need to work closely together in primary care homes and interprofessional teams in northern BC.

**Method:** Fifteen PHNs shared their experiences of collaborating with primary care providers in day-to-day practice. Data was analyzed using qualitative interpretive description methods (Thorne, 2008).

**Results:** PHNs' experience of collaboration was characterized by the themes of power, autonomy, communication, and a public health perspective. PHNs viewed collaboration with primary care providers somewhat skeptically, but they possessed the knowledge, skills, and abilities to collaborate successfully. The facilitators of collaboration were client-centred care, professional relationships, teamwork, leadership, and direct communication.

**Conclusion:** When PHNs made clients' needs and preferences for care and services their priority, the foundational aspects of collaboration were expressed in their practice, and collaboration with primary care providers contributed to positive outcomes for clients, families, and communities.

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## "Being Part of the Community": Practices Contributing to the Professional Satisfaction of Nurse Practitioners in Northern British Columbia

**Authors:** Farah McKenzie, MScN, NP(F) 4, Robert Pammett, BSc, BSP, MSc 1,2, Andrew Schulz 3, Alex MacDonald 3, Helen Bourque MScN, NP(F) 1, Erin Wilson, PhD, NP(F) 1,3

1. Northern Health
2. University of British Columbia
3. University of Northern British Columbia
4. BC Cancer, Center for the North

**Context:** Family nurse practitioners (NP) have been regulated primary care providers in British Columbia (BC) since 2005. The practice of NPs, especially those in northern or rural communities, remain largely unarticulated.

Objective: To describe NP practices that go beyond patient care by integrating Primary Health Care principles such as accessibility, public participation, population orientation and intersectoral collaboration.

Methods: Semi-structured interviews with NPs were completed between April and June 2018 to reveal facets of everyday practice, particularly those that go beyond provision of providing direct patient care. Transcripts were analyzed interpretively to help answer the question of “How nurse practitioners are engaged in primary health care practices”.

Results: Thirteen (45%) NPs from a range of community-based practice settings across Northern BC participated. NPs report feeling committed to the communities in which they live and work, and a sense of pride in contributing to the health of the community. NPs value belonging to community, being able to experience and learn from First Nations populations, and report satisfaction in providing longitudinal care and forming relationships with patients and team members.

Conclusion: NPs are deeply rooting in the communities in which they work. Understanding particular factors that contribute to professional satisfaction may promote retention of NPs to rural locations on northern BC.

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### **“Common and Predictable?” Addressing Assumptions about Nurse Practitioner Practice in Northern British Columbia.**

Authors: Erin Wilson, PhD, NP(F) 3,1, Farah McKenzie, MScN, NP(F) 4, Robert Pammett, BSc, BSP, MSc 1,2, Andrew Schulz 3, Alex MacDonald 3, Helen Bourque MScN, NP(F) 1

1. Northern Health
2. University of British Columbia
3. University of Northern British Columbia
4. BC Cancer, Center for the North

Context: Family nurse practitioners (NPs) have worked in northern British Columbia (BC) for 13 years, helping to attenuate inequities in access and health outcomes for patients in rural and northern regions of the province. The ways in which the public, other health care professionals or decision-makers understand NP roles and functions may not reflect the realities of everyday practice.

Objective: To highlight NP practices that draw attention to the complex nature of caring for patients in primary care in northern BC, with the intent to help dispel assumptions that NPs are prepared only to treat “common illnesses and injuries” in primary care.

Methods: All NPs who are part of the Community of Practice group in Northern Health were invited to participate. 13 NPs (45%) agreed to complete a semi-structured interview that included questions about a typical day in practice, key features of NP care, a recent impactful experience, and involvement in activities beyond providing direct patient care. Interviews were professionally transcribed and analyzed interpretively.

Results: NPs report working with patient populations who are vulnerable and marginalized. NPs provide care to medically and socially complex patients while navigating a variety of other tasks associated with implementation of a new role amongst ongoing human resource shortages and turnover. NPs make explicit linkages between a patient’s social circumstances and health conditions, contributing to their ability to provide patient-centred care and grow a primary care practice that is responsive to community needs.

Conclusion: Understanding the ways in which NPs practice can contribute to improved acceptance, articulation, and implementation of the role in northern BC. This study can help inform changes to recruiting and retaining NPs to northern BC communities.

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### **The Role of Primary care in response to the Wild Fires Summer of 2017 – Northern Health**

The purpose of this presentation is to share lessons learned from working together as a team providing primary care for wildfire evacuees.

This presentation will review the need for establishing primary care clinics in two separate sites in response to the wild fire evacuees in Prince George. It will review the roles of the members of the Interprofessional team, examine patient stories, and also review lessons learned.

When disaster strikes, many needs occur simultaneously for individuals. Housing, nutrition, transportation, and medications are some of the most basic of needs for individuals and/or families (Mensah et al 2005). Primary care providers are well equipped to respond to the urgent needs of individuals who are displaced due to natural disaster. Nurse Practitioners who are grounded in and provide primary care on a daily basis were able to assist in the provision of primary care on site at the reception centre and in group housing and other areas as needed when individuals arrived in the community of Prince George. A team approach was established utilizing the roles and scopes of nurses, Nurse Practitioners as well as Physicians, Pharmacists, and other specialist's supports as required. Ancillary services were also required to assist in the provision and support of care. Johnson (2013) states "that interprofessional health care teams are an efficient and effective way of organizing and providing care for chronically ill individuals and populations" (p. 241). Nurse Practitioners have the skills and abilities to be integral members/leaders of teams who support not only those with episodic primary care issues, but also complex chronic conditions.

References:

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<b>Morning - Thursday, November 8, 2018</b>		
<b>Session C: Including the patient and family voice</b>	<b>Room 208</b>	<b>9:45am-11:25am</b>

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**Responsible care vs. Reactive Care - The Importance of the Patient Voice**

Edwina Nearhood – Patient Voices Network Patient Partner

I have been managing chronic heart disease that I was born with for over 30 years. As a patient, I have had successes and fails that resulted in a preventable health care crisis. The fails were not singular, but a symptom of a disconnected health care system that would have benefited from better interdisciplinary communication. I was the glue that held all disciplines together except no one was listening to me. Patient journey mapping is a quality improvement teaching tool that can help identify gaps in quality care.

Physical, emotional, and spiritual health are all components that have supported my wellness. I have a great interdisciplinary team that supports my journey to maintain the best possible wellness for me. I am the glue that holds the team together.

In this session, I will share my experience with local, regional, provincial and national health care partners and my own patient journey to emphasize the importance of patient activation and involvement in quality care. As leaders in the healthcare system, there are many options to involve and engage patients in healthcare redesign. It is essential that we find ways to integrate success stories, near misses and fails into our efforts to improve the healthcare system, and help health care professionals be guided by patient and family experience.

I look forward to weaving these topics together to bring the voice of the patient to the forefront. Together the goal is to bring a more patient and family centered care lens to support patient involvement, activation and wellness.

Biography: Edwina Nearhood is a Patient Voices Network Patient Partner. She is very actively involved locally, regionally and provincially as a volunteer. She works on several steering committees and brings a valued voice to the table.



## Findings from a provincial initiative encouraging health care providers to ask the patients they care for “What Matters to You?”

Authors: K Proudfoot, MSc, RD and C Almost, MAL

Asking “What Matters to You?” is a simple and effective way to meaningfully engage with patients that can have a big impact on the quality of care.

To support health care providers in this work, the BC Patient Safety & Quality Council launched a provincial program with a simple question aimed at ensuring that care is aligned with what matters to patients and their families. When providers have a conversation about what really matters to the people they care for, it helps them to perform their work more effectively and to provide care that is patient- and family-centred.

The What Matters to You (WMTY) program provides a powerful opportunity to connect with patients, residents and their families on a more meaningful and personal level. Qualitative theming from evaluation results of the program in the first year revealed incredible stories, insights and feedback including:

1. Patient engagement is essential for quality care. For health care providers, asking WMTY served as a reminder that patients are the true experts on what matters to them. Patients are their most important partners and incorporating patient preferences during decision making is key to providing quality care.
2. Patients want a voice. Many participants noted that patients often just want to be heard. Patients appreciated when providers took the time to listen to and acknowledge their needs. Following their “What matters to you?” conversations, providers were motivated to address patient’s needs in a respectful and compassionate way.
3. Asking “What Matters to You?” connects with core values. Health care providers revealed that participating aligned with their core values as helping and healing professionals.

Based on the incredible success of the first year of “What matters to you?” , which focused on a single day of action, BCPSQC now supports WMTY as an ongoing initiative encouraging providers to embed the question, “What Matters to You?” into care conversations each and every day

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### Engaging Patient/Family Partners in Quality Improvement

Authors: Sally Rosevear, Marlene Apolczer

Aim: To authentically engage with patient/family partners to identify where opportunities for improvements to existing health care processes can be made.

Methods: Patient Journey Mapping session to identify family member's experience of care

#### Results

Patient Journey mapping was used as a tool to identify improvement opportunities for existing acute care and community care processes. The content from the patient journey mapping session is currently being developed into a module on the Learning Hub as a Person Family Centred Care (PFCC) teaching/education tool for frontline care providers.

#### Lessons Learned

Working with patient/family partners need to incorporate their schedules, not within the confines of Monday - Friday, 8:30 - 4:30

Respecting that when working with patient/family partners the work involved may be their life and as health care providers this is our job. We need to respect their commitment/ownership of the work. It is powerful for care providers to hear directly from the patient/family member regarding their experience of care.

As health care providers, we may consider ourselves "experts" in our work and there is much value when we open ourselves to working collaboratively with patient partners and being open to their suggestions and the wisdom and experience they contribute to the process.

# Notes

# Notes



## Conference Evaluation

### Conference Objectives

- Celebrate and share research, quality improvement, evaluation, and implementation of evidence in a northern and rural context;
- Support the development of research, quality improvement, evaluation, and evidence-informed practice skills;
- Facilitate networking and knowledge sharing; and
- Inspire new ideas and encourage diverse partnerships and broaden the involvement of different stakeholders invested in the health of northerners.

**Which of the following best describes your current role?** *Please check the most suitable response.*

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> UNBC Faculty        | <input type="checkbox"/> UNBC Staff              | <input type="checkbox"/> Student                    |
| <input type="checkbox"/> NH Staff (Clinical) | <input type="checkbox"/> NH Staff (Non-clinical) | <input type="checkbox"/> Community service provider |
| <input type="checkbox"/> Physician (Family)  | <input type="checkbox"/> Physician (Specialist)  | <input type="checkbox"/> Other: _____               |

**Please rate the conference overall on the following scale** (*circle the appropriate response*):

<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
1	2	3	4	5

### For Physicians Only:

**Did the conference meet the stated learning objectives?**

- Yes    No    N/A

If no, please explain:

**Did you perceive any bias, whether industry or other, in any part of the conference?**

- Yes    No    N/A

If yes, please explain:

**Reflecting on the program content, I am motivated to change my practice in the following ways:**

**General Conference**

Please circle the number that reflects your level of agreement with each statement below:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The conference objectives were met	1	2	3	4	5
I learned about a research/evaluation/quality improvement project that could inform my work	1	2	3	4	5
The conference was a valuable opportunity to network and make or strengthen existing contacts	1	2	3	4	5
I have gained new knowledge to build or enhance health policy, research or quality improvement partnerships	1	2	3	4	5
I have a better understanding of the resources that exist to support research or quality improvement in Northern BC	1	2	3	4	5
This conference provided good value for the time spent here	1	2	3	4	5
Overall the conference was well organized	1	2	3	4	5

**What could have been done to improve the conference?**

**Conference Sessions**

Please rate the conference sessions on the following scale (circle the appropriate response):

	Poor	Below Average	Average	Above Average	Excellent
<b>November 6<sup>th</sup> Workshops (Please indicate the session you attended)</b>					
<input type="checkbox"/> <i>Potlaches &amp; Research</i>	1	2	3	4	5
<input type="checkbox"/> <i>Measurement for Quality Improvement</i>					
<input type="checkbox"/> <i>Improvement Basics</i>					
<input type="checkbox"/> <i>Doing and Using the Arts in Health Research</i>					
<b>November 7<sup>th</sup></b>					
<b>Keynote Speaker: Dr. Shimi Kang</b> <i>Navigating Modern Day Realities: Stress and Adaptability</i>	1	2	3	4	5
<b>AM Concurrent Sessions</b> (Please indicate the session you attended)	1	2	3	4	5
<input type="checkbox"/> <i>A</i>					
<input type="checkbox"/> <i>B</i>					
<input type="checkbox"/> <i>C</i>					
<b>Plenary Session: Exercise in Chronic Disease</b> <i>Dr. Anurag Singh, Dr. Malgorzata Kaminska, Robin Roots</i>	1	2	3	4	5

<b>PM Concurrent Sessions 1</b> (Please indicate the session you attended) <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F	1	2	3	4	5
<b>PM Concurrent Sessions 2</b> (Please indicate the session you attended) <input type="checkbox"/> G <input type="checkbox"/> H <input type="checkbox"/> I	1	2	3	4	5
<b>Rapid Fire Poster Presentations</b>	1	2	3	4	5
<b>Reception &amp; Poster Viewing</b>	1	2	3	4	5
<b>November 8<sup>th</sup></b>					
<b>Plenary Session: Francisco Ibanez-Carrasco</b> <i>Community Based Research</i>	1	2	3	4	5
<b>Concurrent Sessions</b> (Please indicate the session you attended) <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	1	2	3	4	5
<b>Poster Award Presentations</b>	1	2	3	4	5
<b>Please provide any comments or feedback on any of the above sessions:</b>					

**General Feedback**

<b>Is there anything you plan to do differently because of having attended this conference?</b>
<b>What was the most valuable part of the conference for you?</b> (Please indicate the sessions, discussions, presentations etc. that were especially beneficial to you)

**Do you have any suggestions for future conference workshops, topics or presenters:**

If you would be interested in participating on an Advisory Group or Planning Committee for the  
2020 Northern BC Research & Quality Conference, let us know!

Please contact [fdc@northernhealth.ca](mailto:fdc@northernhealth.ca)

**THANK YOU FOR YOUR FEEDBACK**

***Please drop off your evaluation form at the registration desk.***