PROGRAM AND BOOK OF ABSTRACTS

The 3rd Annual IDC Northern Research Days and the 12th Conference of the Canadian Rural Health Research Society

Stories of RURAL HEALTH THROUGH Knowledge, Research & Collaborative Action

idc innovation and development commons

northern health the northern way of caring

CRHRS SCRSR
Canadian Rural Health Research Society | Société canadienne de recherche en santé rurale

PRINCE GEORGE, BC
November 13-15, 2013

http://crhrs-scrsr.usask.ca/pgbc2013

Prince George, British Columbia

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The 3rd Annual IDC Northern Research Days and 12th Annual Canadian Rural Health Research Society (CRHRS) 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.

Railway Bridge, Prince George over the Nechako River
Photos courtesy of UNBC Communications

Mr. PG, at the junction of Highway 97 and Highway 16, B.C.

Stories of RURAL HEALTH THROUGH Knowledge, Research & Collaborative Action

November 13-15, 2013, Civic Centre, Prince George, BC

Welcome to the 3rd Annual IDC Northern Research Days and 12th Annual Canadian Rural Health Research Society Conference

As the Chair of the Canadian Rural Health Research Society, I welcome you to our 12th conference in Prince George, British Columbia. We are delighted to be working in collaboration with Northern Health and Innovation and Development Commons in their 3rd Annual Northern Research Days to offer such a wide range of topics at the conference. Our focus on stories of rural health through knowledge, research and collaborative action highlights the importance we place on hearing the voices and experiences of those who both live and work in rural and northern areas.

The conference program offers many opportunities for networking between researchers and practitioners to discuss issues across the lifespan and share models of services and interventions that can best meet the unique needs of rural and northern residents. We hope that the interactions and networking throughout the conference will inspire new approaches and creative means to tackle health issues affecting Canadians living in rural and remote areas.

We are pleased again this year to welcome the presenting PHARE students to the conference; their presence often leads to interesting discussions, debates, and creative solutions.

Hosting a conference of this degree requires a great deal of teamwork and a sincere thank you is extended to the conference committee for the excellent work they have done in organizing this exciting and diverse program.

Thank you for attending the 12th Annual CRHRS conference and I hope you enjoy your experience!

Bonnie L. Jeffery

Bonnie Jeffery
Chair, Canadian Rural Health Research Society

CRHRS SCRSR
Canadian Rural Health Research Society | Société canadienne de recherche en santé rurale

northern health
the northern way of caring

Stories of RURAL HEALTH through Knowledge, Research & Collaborative Action

November 13-15, 2013, Civic Centre, Prince George, BC

Welcome to the 3rd Annual IDC Northern Research Days and 12th Annual Canadian Rural Health Research Society Conference

Welcome to Prince George and northern British Columbia. I am pleased that you have chosen to attend the 2013 IDC Northern Research Days and the 12th annual CRHRS conference. A special acknowledgement and thank you goes to the organizing committees for their work over the last year to plan this conference, including the Scientific Review committee, the Scientific Program committee and the Prince George Conference Planning committee.

The theme for the 2013 conference is "Stories of Rural Health through Knowledge, Research and Collaborative Action." Throughout the program, participants will be offered a selection of rich and varied plenary and concurrent sessions. The stories that will unfold throughout the conference will resonate for those who have dedicated your working life to improving the health and wellbeing of the people who call rural Canada home. This conference has been designed to provide formal learning but also ample opportunity for participants to share stories informally and to learn from each other.

I hope you carry the stories conveyed and the dialogue made possible at this conference home with you and that they serve as a catalyst for further knowledge development, research, and collaborative action.

Cathy Ulrich
President and CEO,
Northern Health

idc innovation and development commons

CRHRS SCRSR
Canadian Rural Health Research Society | Société canadienne de recherche en santé rurale

northern health the northern way of caring

Welcome to the 3rd Annual IDC Northern Research Days and 12th Annual Canadian Rural Health Research Society Conference

On behalf of the Innovation and Development Commons (IDC) and the University of Northern British Columbia Health Research Institute (HRI), we would like to welcome you to Prince George and to the 3rd Annual Research Days Conference and the 12th Annual Canadian Rural Health Research Society Conference (CRHRS), "Stories of Rural Health Through Knowledge, Research & Collaborative Action". The goal of this year's conference is to bring together different experiences and perspectives regarding knowledge sharing, research and collaboration and we are excited to be partnering with the CRHRS and connecting our local researchers, practitioners and community groups with a national group of researchers focused on rural and northern health.

The IDC is an on-going partnership between Northern Health and UNBC which aims to facilitate education, research, and innovation in the North and ultimately improving the quality of life and health outcomes for Northerners. Embarking on its inaugural year, the HRI is focused on its mission to facilitate the creation and translation of knowledge that will enhance the health and wellbeing of individuals, families and communities. The partnership between UNBC and NH, enhanced by our joint commitment to community engagement, provides a unique environment for the creation of knowledge and its translation into practice.

We look forward to highlighting the innovative research and initiatives occurring in Northern BC. We welcome plenary speakers from the First Nations Health Authority to tell us their story about commitment to community and community engagement to improve the health of First Nations in BC. As well, we will hear from Dr. Margot Parkes and her partners on the innovative collaboration between Northern Health, UNBC, and community as they discuss their research connecting watersheds, well-being and the environment as a context for health.

We anticipate connecting with you during the conference and hope you enjoy Prince George.

Fraser Bell

Geoff Payne

Welcome to the 12th Annual Canadian Rural Health Research Society Conference and 3rd Annual IDC Northern Research Days

I would like to welcome everyone to the 12th Annual Conference of the CRHRS and 3rd Annual IDC Northern Research Days. It has been a pleasure to develop the program under the conference theme of "The Stories of Rural Health through Knowledge, Research and Collaborative Action". Telling and listening to stories help us to understand and communicate our knowledge in powerful ways. The conference this year takes on a new flavour for those of us in rural health, and I hope that everyone will immerse themselves in the possibilities! This year's partnership between the CRHRS, the Innovation and Development Commons (IDC) and the Health Research Institute (HRI) has resulted in a very creative and exciting program of social activities, keynote speakers and workshops to complement the concurrent sessions. A special thank you to the 17 individuals on this year's scientific review committee. I would also like to say a very special thank-you to Rachael Wells, Joanna Paterson and Lorene Jewitt for their assistance in developing this exciting program. Dream big and enjoy all that the conference, Prince George and Northern British Columbia have to offer.

Martha MacLeod
HRI, Scientific Chair, Annual IDC & CRHRS Conference
"Stories of Rural Health through Knowledge, Research and Collaborative Action"

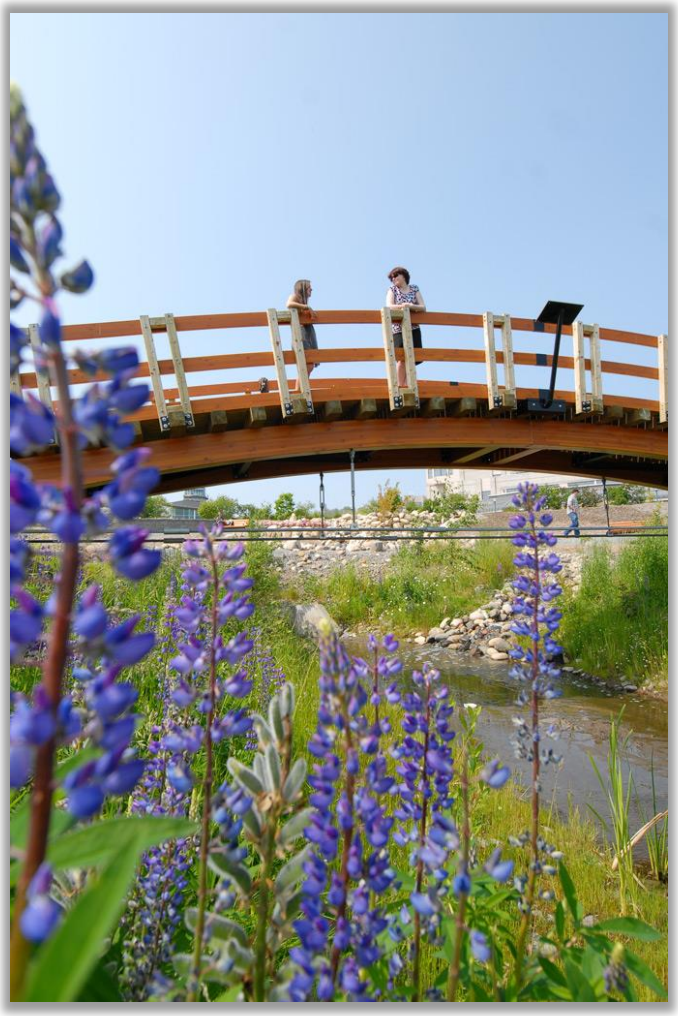
http://princegeorgeciviccentre.ca/
808 Civic Plaza, Prince George, BC, V2L 5T6;
E-mail: civiccentre@city.pg.bc.ca; Phone: 250.561.7723

PRINCE GEORGE

We are pleased to welcome you to the beautiful and dynamic city of of Prince George, British Columbia for the 2013 Northern Health Research Days and the 12th Annual CRHRS Conference **"Stories of Rural Health through Knowledge, Research and Collaborative Action"**.

Prince George is the place where roads, rails and rivers meet. Located at confluence of the Fraser and Nechako Rivers and at the junction of Highways 16 and 97 (786 kilometers NE of Vancouver), the city is a major transportation hub located in the heart of British Columbia. Our city is never still and seems to constantly have an event, festival or celebration to bring people together. In Prince George you will find top-notch theatre, arts and culture. Visit the beautiful campus of UNBC and discover for yourself why it's been ranked 'the best in the West'. From your hotel enjoy our 11km Heritage River Trail system that follows the rivers and winds through some of Prince George's most scenic and historic sites. Take a short hike through Forests for the World or enjoy the sights of Exploration Place, The Railway and Forestry Museum or Twin Rivers Art Gallery.

Come to Prince George and not only will you find wilderness and wildlife, you will also discover all the modern amenities we can offer.
Prince George, a city well worth exploring and a fabulous host for this conference!



Photos courtesy of UNBC Communications

Two Rivers Gallery

725 Civic Plaza

Opening Reception
Wednesday, November 13
http://www.tworiversartgallery.com/

BC Cancer Agency, Centre for the North

University Hospital of Northern BC

Health Sciences Centre, UNBC

Courtyard, UNBC

Photos courtesy of University of Northern British Columbia Communications

ACKNOWLEDGEMENTS

Stories of RURAL HEALTH through Knowledge, Research & Collaborative Action

PARTNERS

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. The Authority covers almost two-thirds of B.C.'s landscape, which is home to over 30,000 people. www.northernhealth.ca

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.

The Canadian Rural Health Research Society

The Canadian Rural Health Research Society offers the opportunity for researchers and their collaborators to network with new and established researchers of many disciplines engaged in rural, remote and northern health research. Each year, at our annual scientific meetings we discuss current findings and seek to build new and extend existing networks among those with common research interests and goals. In the autumn of 2002, we changed our name to the Canadian Rural Health Research Society from the Consortium for Rural Health Research.

SPONSORSHIP

UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

SCHOOL OF NURSING
OFFICE OF RESEARCH
OFFICE OF GRADUATE PROGRAMS

CRHRS SCRSR
Canadian Rural Health Research Society
Société canadienne de recherche en santé rurale

CENTRE FOR THE NORTH

BC Cancer Agency
CARE + RESEARCH
An agency of the Provincial Health Services Authority

RHSRNbc
Rural Health Services Research Network of BC

BC BRITISH COLUMBIA Nurses' Union

ACKNOWLEDGMENTS AND APPRECIATION

Canadian Centre for Health and Safety in Agriculture
for their ongoing support of the Canadian Rural Health Research Society
Sueli Bizetto de Freitas, Conference Secretariat

University of Northern British Columbia
for their support and partnership
with the conference

Workshop Presenters
Carolyn Holmes, Cat Sivertsen, Sarah de Leeuw,
Stefan Grzybowski, Jonathan Berkowitz
Agnes Snow, Theresa Healy
Maureen Dobbins, Josée Lavoie

Keynote Speakers
Ivan Coyote

Plenary Speakers and Panels
Margot Parkes, Ronald Chapman, Sandra Harris, Terry Robert
First Nations Health Authority

Traditional Territory of the Lheidli T'enneh

Session Chairs
for the concurrent, keynote and plenary sessions

All of the presenters who participated in this conference

The Scientific Review Committee
for their review of the abstracts
Linda Axen, Nicole Balliet, Dana Edge, Jim Campbell, Richard Fleet, Taylor Fleming,
Tanis Hampe, Bonnie Jeffery, Chandima Karunanayake, Jeffrey Kormos, Josh Lawson,
Bonita Mechor, Donna Rennie, Robert Olson, Pam Tobin, Kyle Whitfield

Scientific Program Committee
Bonnie Jeffery, Lorene Jewitt, Shelley Kirychuk,
Martha MacLeod, Joanna Paterson, Rachael Wells

Conference Planning Committee
Linda Axen, Nicole Balliet, Tamara Checkley,
Jayleen Emery, Taylor Fleming,
Tanis Hampe, Tammy Hoefer, Alice Muirhead,
Kim Powley, Rheanna Robinson,
Jaclyn Sawtell, Elizabeth Whittles

Totem Pole at Nass River, British Columbia
Photo courtesy of UNBC Communications

SPEAKERS & PLENARIES

Stories of RURAL HEALTH THROUGH Knowledge, Research & Collaborative Action

KEYNOTE SPEAKER

Ivan Coyote
Thursday, November 14, 2013
0900 – 1000

Prince George Civic Centre, Room 102

"Chest Pains and Rest Stops: One Big Family, One Long Highway, and One Little Hospital"

Join Ivan Coyote as she recounts some stories from her giant family's five generations and seventy years in the Yukon.

Ivan Coyote
Author/ Storyteller
http://www.ivanecoyote.com/

Ivan Coyote was born and raised in Whitehorse, Yukon Territory. An awardwinning author of seven collections of short stories, one novel, three CD's, four short films, the editor of an anthology, and a renowned performer, Ivan's first love is live storytelling and over the last eighteen years she has become an audience favourite at music, poetry, spoken word and writer's festivals from Anchorage to Amsterdam. The Globe and Mail called Ivan a "natural-born storyteller" and Ottawa X Press said "Coyote is to CanLit what k.d. lang is to country music: a beautifully odd fixture". Toronto Star praises Coyote's "talent for sketching the bizarre in the everyday", and Quill's Magazine says Ivan has a "distinctive and persuasive voice, a flaw less sense of pacing, and an impeccablesense of story".
Ivan's column, *Loose End*, appeared monthly in Xtra Westmagazine for eleven years. Her first novel *Bow Grip* was awarded the ReLit award for best fiction and named by the American Library Association as a Stonewall Honor Book in Literature, and is in development to be made into a feature length film. Ivan's new collection of short stories, *Missed Her*, was released in September 2010. Ivan also recently co-edited *Persistence: All Ways Butch and Femme* with Zena Sharman. Coyote's latest short story collection, *One In Every Crowd*, a young adult collection of stories compiled for queer high school kids, was released in April 2012.

PLENARY SESSION

Thursday, November 14, 2013, 1300 – 1345

Prince George Civic Centre, Room 102

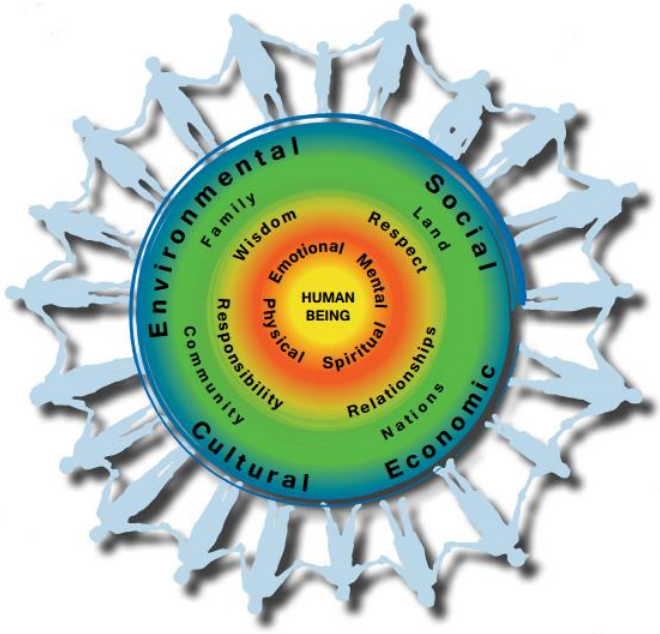
First Nations Health Authority

"Communities, Collaboration, and Quality Care"

First Nations Health Authority
Health through wellness
http://www.fnha.ca/

On October 1st 2013, the First Nations Health Authority (FNHA) made history in Canada with the official transfer of all programs and services from Health Canada's First Nations Inuit Health branch to the FNHA. The FNHA has now assumed responsibility for all health services delivered to status First Nations individuals in British Columbia. The FNHA's vision is to support "Healthy, Self-Determining and Vibrant BC First Nations Children, Families and Communities" and will achieve this through adherence to the 7 Directives put forward by First Nations communities in B.C. with an unwavering commitment to community, collaboration, and quality care.

This panel presentation will share the story of the journey of the FNHA and will include powerful dialogue about who we are, how we got here, and where we are going. It is through conversation and knowledge sharing with valued experts and partners that we will collaboratively move forward and improve the health of our communities.



This Plenary Session will carry on
as a Concurrent Session
"First Nations Health Authority – Continuing the Dialogue"
1400 to 1520
Room 102
Prince George Civic Centre

First Nations Perspective on Wellness Image as provided in
http://www.fnha.ca/SpiritMagazine/Spirit_Winter_2013.pdf

PLENARY SPEAKER

Dr. Margot Parkes
Friday, November 15, 2013
0830 – 0945

Prince George Civic Centre, Room 102

"Upstream Is A Place: Collective Learning and Stories about Watersheds, Well-Being and the Environment as a Context for Health"

Margot Parkes
MBChB, MAS, PhD
http://www.unbc.ca/parkes

Dr. Margot Parkes is a Canada Research Chair in Health, Ecosystems and Society and an Associate Professor in the School of Health Sciences at the University of Northern British Columbia. Her research probes our understanding of the environment as a context for health, and seeks to integrate social and ecological determinants of health, especially in rural, remote and Indigenous communities.

Dr. Parkes work brings together organizations, communities and researchers to focus on watersheds as settings for health, and to design education, research and governance options that foreground the relationships among health, social equity and ecosystem sustainability. Her interest in water-related determinants of health began with a focus on watershed management and public health in rural river catchments in New Zealand and has developed through work in Europe, Hawaii, Ecuador and Canada.

Her past work as a medical doctor in New Zealand and subsequent training in human ecology and public health have also fuelled innovative teaching and leadership roles in the field of ecohealth and ecosystem approaches to health.

In 2009 Dr. Parkes moved to Northern BC where she has had the opportunity to work with a variety of groups who share the converging goals of "healthy people, living in healthy communities and healthy environments", including Northern Health, watershed groups, First Nations, local and provincial government agencies, as well as interdisciplinary research colleagues at UNBC and beyond. These research collaborations provide an opportunity to collectively learn about health and wellbeing as a core consideration for water and land governance, and about watersheds as settings for integrated and intersectoral action to improve health and wellbeing.

Dr. Parkes ongoing commitment to developing and expanding the emerging field of ecohealth is reflected in her involvement as founding board member and past President of the International Association for Ecology and Health, as a co-founder of the Canadian Community of Practice in Ecosystem Approaches to Health (CoPEH-Canada) and as founding Managing Editor (2003-2007) of the international peer-reviewed journal EcoHealth published by Springer. Dr. Parkes also has cross appointment with the Northern Medical Program at the University of British Columbia.

PLENARY SESSION

Friday, November 15, 2013, 0830 – 0945

Prince George Civic Centre, Room 102

"Upstream Is A Place: Collective Learning and Stories about Watersheds, Well-Being and the Environment as a Context for Health"

Plenary Panelists:

Ronald Chapman
Vice President Medicine, Northern Health,
a co-lead on the project as Chief MHO for Northern Health and lead of NH's Environment as context for the Health Position Paper.

Sandra Harris
Wet'suwet'en Nation,
a community watershed partner who has been working closely with the Office of the Wet'suwet'en to produce a Digital Story profiling Health-Environment and Community connections in watersheds.

Terry Robert
Fraser Basin Council,
a key partner and steering committee member through the work who has extensive experience on intersecting oral/partnered governance issues.

This plenary session will combine a presentation and panel that profiles lessons from an innovative Northern Health – UNBC partnership focused on watersheds, well-being and the environment as a context for health.

The session begins with a plenary address from **Dr. Margot Parkes,** a Canada Research Chair in Health, Ecosystems and Society and an Associate Professor in the School of Health Sciences at the University of Northern British Columbia, profiling innovations in research, education and practice focused on ecosystem approaches to health from regional through to international contexts.

Insights from the application of this work in northern BC will be profiled through the use of Digital Story-telling to integrate health, environment and community concerns, and the experiences of project partners from a multi-stakeholder Knowledge to Action project focused on intersectoral action for health within northern BC watersheds.

Panelists from Northern Health, Wet'suwet'en Nation and Fraser Basin Council will share their experiences and insights from the project as they relate to conference themes of stories knowledge, research and collaborative to improve health and wellbeing.

WORKSHOPS

Stories of RURAL HEALTH THROUGH Knowledge, Research & Collaborative Action

WORKSHOPS

"The Arts and Storytelling: A Method of Patient Communication"

Wednesday, November 13, 2013
0830 – 1130
Two Rivers Gallery
725 Civic Plaza, Prince George

Carolyn Holmes
Public Programs Manager, Two Rivers Gallery

Cat Sivertsen
Local Artist, Arts Educator, Research Associate, UNBC

Sarah de Leeuw
Creative Writer, Geographer, Associate Professor, UNBC's Northern Medical Program
Faculty of Medicine, UBC

This unique, hands-on workshop co-faciliated by **Carolyn Holmes**, **Cat Sivertsen** and **Sarah de Leew** explores how creative arts and storytelling / narrative can be meaningful, and powerful, tools for patient / clinical communication.

The workshop unfolds in three parts: firstly participants will be introduced to the ways that health care can be broadened through considerations of the humanities and creative arts; secondly, participants will be led through a series of hands-on art making exercises; and thirdly participants will receive a practical guide to accessible arts projects for use within a clinical practice.

The first section of the workshop will look at why creative expression is particularly important in relation to Indigenous communities and the role of creative arts in medical education and practice. The second section will encourage participants to "get their hands dirty" in simple art making exercises to generate visual story telling. Participants will take away artworks suitable for the "refrigerator gallery" in addition to an introductory guide (with recipes) on how to incorporate simple art making into clinical practice.

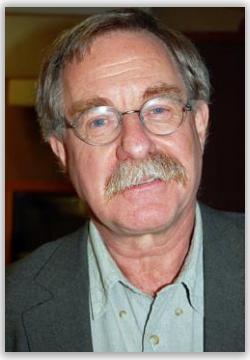
WORKSHOPS

"Developing a Research Question"

Wednesday, November 13, 2013
0830 – 1130
Room 201-203, Prince George Civic Centre

This workshop is intended for junior researchers, clinicians and health authority employees who are interested in conducting research or have research ideas but need direction and confidence to move forward. The goal of this workshop is to work with participants to develop their research ideas into project proposals. During this interactive session, you will explore and discuss research ideas, learn how to refine and develop research questions, define strategies for developing research questions, and explore appropriate methodologies to carry out such research questions.
The objectives of this workshop are:

- step by step approach to developing a research idea and organizing methods to answer the research question with examples from participants research ideas.
- A pragmatic approach to managing your data.
- To facilitate a discussion around research that matters to rural practice with emphasis on health services research.



Stefan Grzybowski
MD, MClSc,
Health Research Services

Jonathan Berkowitz
PhD, Statistics

Stefan Grzybowski (MD, MClSc), is a Professor in the Department of Family Practice at UBC and a family physician with many years of rural clinical experience. He was Director of Research in the Department of Family Practice at UBC for 10 years and currently holds a Michael Smith senior scholar award. He has an abiding focus on rural health services research and building research capacity, both of which are exercised through his current position as co-Director of the Centre for Rural Health Research. Specific research foci include the safety of small rural maternity services with and without cesarean section capacity and supporting primary care clinician investigators. Dr. Grzybowski is also the director of the Rural Health Services Research Network of BC.
Jonathan Berkowitz (PhD) is a consulting Statistician with Berkowitz & Associates Consulting, Inc, and has more than 20 years of experience in the field of applied statistics. For many years he assisted the Department of Family Practice at UBC with quantitative analysis. He currently serves as Clinical Associate Professor, Operations and Logistics Division at the Sauder School of Business, Robert H. Lee Graduate School, University of British Columbia. Besides teaching courses on Data Utilization and the Application of Statistics in Business and Management, Dr. Berkowitz has co-written and edited many peer-reviewed journal articles, technical papers, and study reports in relation to problem formulation, research design, data analysis and presentation, and continuing statistical education.

WORKSHOPS

"Evidence Informed Public Health"
"Critical Appraisal of Research Evidence"

Wednesday, November 13, 2013
0830 – 1130; 1230 - 1530
Room 208, Prince George Civic Centre

This full-day workshop will review the overall process of evidence-informed public health, specifically focusing on the critical appraisal of research evidence and is targeted towards public health practitioners, program managers/directors, and staff responsible for the planning and delivery of public health programs and services.

Maureen Dobbins
RN, PhD
National Collaborating Centre for Methods and Tools (NCCMT)

The workshop objectives are:

1. To clearly frame an answerable evidence search question.
2. To know where and how to find high quality relevant research.
3. To develop or enhance skills in the critical appraisal of a systematic review or primary study.
4. To practice integrating the research evidence with other important factors that contributes to public health decisions.
5. To use research evidence in planning for implementation and evaluation.

This hands-on practical workshop, which involves various teaching and learning scenarious, is divided into two sessions. The morning session will demonstrate the overall process of evidence-informed decision making in public health, including how to find and apply the best available research evidence in program planning and practice. During this session participants will be introduced to the seven steps of evidence-informed public health and will learn how to implement an evidence-informed approach with the support of methods and tools for knowledge translation in public health.

In the afternoon, participants will have the opportunity to work with a current research article. Emphasis will be on learning how to develop or enhance skills in the critical appraisal of research evidence. Topics of discussion will include the interpretation of results and application of research evidence to a public health decision. Individuals need to be familiar with the seven-step process of Evidence-Informed Public Health from the morning session in order to participate in the afternoon session of Critical Apprial of Research Evidence.

Dr. Dobbins research efforts seek to understand knowledge translation and exchange among public health decision makers in Canada. Her program of research has: identified barriers and facilitators to research use; explored the information needs of public health decision makers; and developed, implemented and evaluated a variety of knowledge translation strategies for public health decision makers. Since 2001, she has been the Scientific Director of Health Evidence (www.health-evidence.org), a single source of high quality effectiveness evidence and one component of a comprehensive knowledge translation strategy for public health decision makers worldwide. On January 1, 2012, Dr. Dobbins also assumed the role of Scientific Director for the NCCMT.

WORKSHOPS

"Documenting Northern Wisdom: Working with Rural, Remote and Indigenous Communities"

Wednesday, November 13, 2013
1230 – 1530
Room 201-203, Prince George Civic Centre

Josée Lavoie
Associate Professor,
Faculty of Health Sciences
University of Northern
British Columbia

Rural, remote and Indigenous communities generally have poorer access to health services than other residents in British Columbia, as a result of a multiplicity of factors, including geography, economic factors, recruitment and retention issues, among others. Although improving access to care is an important in healthcare reforms, to date, most health system research has focused on urban-centric concerns and privileged urban-centric solutions that poorly fit rural, remote and Indigenous contexts. Across Canada, northern communities and Health Authorities serving these communities have been left to improvise based on common sense. Some communities have created approaches that may be of benefit to others.

During this interactive workshop, **Dr. Josée Lavoie** will draw on her diverse experiences to share her expertise and knowledge on working to promote health within Indigenous and rural communities. Dr. Lavoie will introduce participants to the challenges of generating evidence to inform healthcare delivery in rural, remote and Indigenous communities. She will then discuss the advantage of forming meaningful partnerships that build on the strength, creativity and wisdom of northern communities.

Round tables will be included in the workshop discussing what innovations have been seen in your communities and what are the lessons as well community partnerships and how this compares to your experience.

Josée Lavoie is currently an Associate Professor in Faculty of Health Sciences at the University of Northern British Columbia. Prior to pursuing an academic career, she spent 10 years working for indigenous controlled primary health care services in Nunavut and northern Saskatchewan. Currently, Dr. Lavoie retains an affiliation with the University of Manitoba Centre for Aboriginal Health Research and a Faculty Appointment with the Department of Community Health Sciences. She is also affiliated with the UBC Centre for Health Sciences and Policy Research. Her research interests include: the engagement of the non-government and indigenous sectors in health care delivery, health care policy and financing; primary health care delivery, health care policy and financing; and health care planning and implementation challenges in remote environments.

WORKSHOPS

"The Way We Work"

Wednesday, November 13, 2013
1230 – 1530
Room 204-206, Prince George Civic Centre

Agnes Snow
Regional Director, Aboriginal Health, Northern Health

Theresa Healy
Regional Manager, Healthy Community Development, Northern Health

Cultural Competence refers to the attitudes, knowledge, skills, behaviours and policies required to better meet the needs of all the people we serve. Cultural Competence can work to reduce disparities in health services, address inequitable access to primary health care and respectfully respond to the diversity of [Northerners] such as: race, ethnicity, language, sex, sexual orientation, gender identity, (dis)ability, spirituality, age, geography, literacy, education and income, etc. (Nova Scotia Department of Health and Wellness, 2011, p. 17). At the heart of cultural competency is self-care.

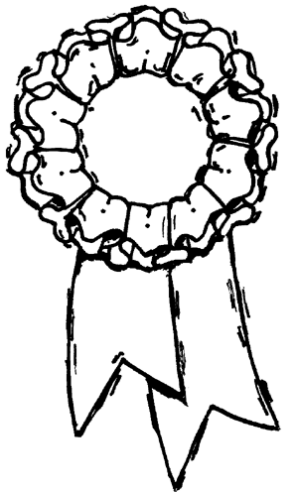
First Nations, Inuit and Metis peoples, including those residing in urban settings, comprise the highest concentration of Indigneous people in the province of British Columbia when compared to other regions. In recognition of this population and diversity, the Aboriginal Health team within Northern Health has developed a series of workshops, starting with 'delivery' in First Nations communities across the North. The menu of workshops was designed and developed in partnership and based on the advice of individuals from northern Aboriginal communities. These workshops are delivered where trusting relationships exist and invitations are forthcoming from the communities.

This workshop provides a 'hands on' experience of one of the community workshops: a self-care workshop entitled, "Paddle Your Own Canoe". The workshop focuses on becoming self-aware and identifing strategies and actions that can inform your personal learning, as well as your professional pracitice. Participants will also engage in identifying and describing characteristics of excellent cultural competency practice. Specific emphasis is placed on the sustainability of the workshop strategies over time for participants themselves, as well as identifying opportunities for sharing the information and learning with others, including professional colleagues and the communities of practice they work in.

Agnes Snow is Northern Health's Regional Director of Aboriginal Health. She started her career in health as a licensed practical nurse in Vancouver, and then moved back to her home community of Canoe Creek where she worked as an additions counselor and then as an elected leader. Agnes originally came to Northern Health as a counselor and treatment therapist at the Nechako Treatment Centre, and then moved to Aboriginal Health as the Community Engagement Coordinator, before taking on her current role.

Theresa Healy is the Regional Manager for Healthy Community Development with Northern Health's population health team and is passionate about the capacity of individuals, families and communities across northern B.C. to be partners in health and wellness. Theresa is an avid historian, writer and researcher who also holds an adjunct appointment at UNBC that allows her to pursue her other passionate love - teaching.

STUDENT POSTER COMPETITION



The 12th Annual CRHRS Conference and 3rd Annual IDC Northern Research Days is featuring a Student Poster Competition. Students that have designated their poster for consideration in the competition will be judged by a panel based on Quality, Evidence, Illustrations, and Overall Appearance. There will be two awards of $150 as contributed by the University of Northern British Columbia, Office of Graduate Programs and by the Canadian Rural Health Research Society with the CIHR-STIHR: Public Health and the Agricultural Ecosystem that will be given to the top student poster presentations. The winners will be announced during the Thursday banquet.

Ariel View of
UNBC Campus
and Prince George

Photo courtesy of UNBC Communications

PROGRAM AT A GLANCE

Stories of RURAL HEALTH THROUGH Knowledge, Research & Collaborative Action

PROGRAM AT A GLANCE

TUESDAY, November 12, 2013		
1900 – 2100	**PHARE WELCOME (Closed Reception)**	*Coast Inn of The North, 770 Brunswick Street*
WEDNESDAY, November 13, 2013		
0730 – 1600	Conference Registration	*Civic Centre, Foyer*
WORKSHOPS		
0830 – 1130	***"The Arts and Storytelling: A Method of Patient Communication"*** *Led by*: Carolyn Holmes Cat Sivertsen Sarah de Leeuw	*Two Rivers Gallery, 725 Civic Plaza*
0830 - 1130	***"Developing a Research Question"*** *Led by:* Stefan Grzybowski and Jonathan Berkowitz	*Civic Centre, Room 201-203*
0830 – 1130	***"Introduction to Evidence-Informed Decision Making in Public Health" (Part 1)*** *Led by*: Maureen Dobbins	*Civic Centre, Room 208*
1130 – 1230	**Lunch For Workshop Participants**	*Civic Centre, Rm 102*
1230 - 1530	***"Working with Indigenous Communities"*** *Led by*: Josée Lavoie	*Civic Centre, Room 201-203*
1230 - 1530	***"The Way We Work"*** *Led by:* Agnes Snow and Theresa Healy	*Civic Centre, Room 204-206*
1230 – 1530	***"Critical Appraisal of Research Evidence for Public Health" (Part 2)*** *Led by*: *Maureen Dobbins* ***Attendance at the morning workshop led by Dr. Dobbins is essential to partake in this workshop.*	*Civic Centre, Room 208*
1545 - 1730	<u>Combined Tour</u> University of Northern British Columbia (UNBC) University Hospital of Northern BC BC Cancer Agency, Centre for the North	*The bus leaves from front of the Prince George Civic Centre*
1700 - 1800	*CRHRS Board Meeting*	*Civic Centre, Room 207*
1800 – 2030	**OPENING RECEPTION** *Cocktails and Networking* CHAIR: TAMMY HOEFER	*Two Rivers Gallery 725 Civic Plaza*

PROGRAM AT A GLANCE

THURSDAY, November 14, 2013		
0730 – 0830 0730 – 1600	Continental Breakfast Conference Registration	*Civic Centre, Rm 101* *Civic Centre, Foyer*
0830 - 0845	**TRADITIONAL WELCOME:** Lheidli T'enneh Band	MORNING CHAIR: TAMMY HOEFER *Civic Centre,* *Room 102*
0845 - 0900	**OPENINGS AND GREETINGS:** Cathy Ulrich, *CEO Northern Health* Ranjana Bird, *VP Research UNBC* Bonnie Jeffery, *CRHRS Chair*	
0900 – 1000	**KEYNOTE SPEAKER:** Ivan Coyote *Award Winning Author/Storyteller, Whitehorse, Yukon Territory* ***"Chest Pains and Rest Stops:*** ***One Big Family, One Long Highway, and One Little Hospital"***	
1000 – 1020	**Refreshment Break and Poster Viewing**	*Room 102 & Foyer*
1020 – 1200	**CONCURRENT SESSIONS:** A) Food and Water B) Children and Youth 1 C) Professional Practice D) Geriatrics and Healthy Aging	*Room 201-203* *Room 204-206* *Room 207* *Room 208*
1200 – 1300	**Lunch and Poster Viewing**	*Room 101, 102 & Foyer*
1300 – 1345	**PLENARY SESSION:** First Nations Health Authority ***"Communities, Collaboration, and Quality Care"*** CHAIR: RHEANNA ROBINSON	*Civic Centre,* *Room 102*
1345 - 1400	***Break / Transition Time***	
1400 – 1520	**CONCURRENT SESSIONS:** A) Communications in Healthcare Delivery B) Children and Youth 2 C) Collaborative Teams and Partnerships D) Access to Specialty Services in Rural Areas E) First Nations Health Authority – Continuing the Dialogue	*Room 201-203* *Room 204-206* *Room 207* *Room 208* *Room 102*
1520 - 1530	***Transition Time***	
1530 – 1650	**CONCURRENT SESSIONS:** A) Rural Programs B) Patient Journeys C) Communities and Government Participation D) Place-Based Health Issues	*Room 201-203* *Room 204-206* *Room 207* *Room 208*
1700 – 1800	**Annual General Meeting CRHRS**	*Civic Centre, Rm 207*
1730 - 1845	**Poster Viewing and Discussion**	*Room 102 & Foyer*
1730 – 1845 1845 – 1945 1945 – 2130	**CONFERENCE BANQUET** Cocktails - Cash Bar Banquet, CHAIRS: TAMMY HOEFER, RACHAEL WELLS Presentation of Awards	*Civic Centre,* *Room 101*

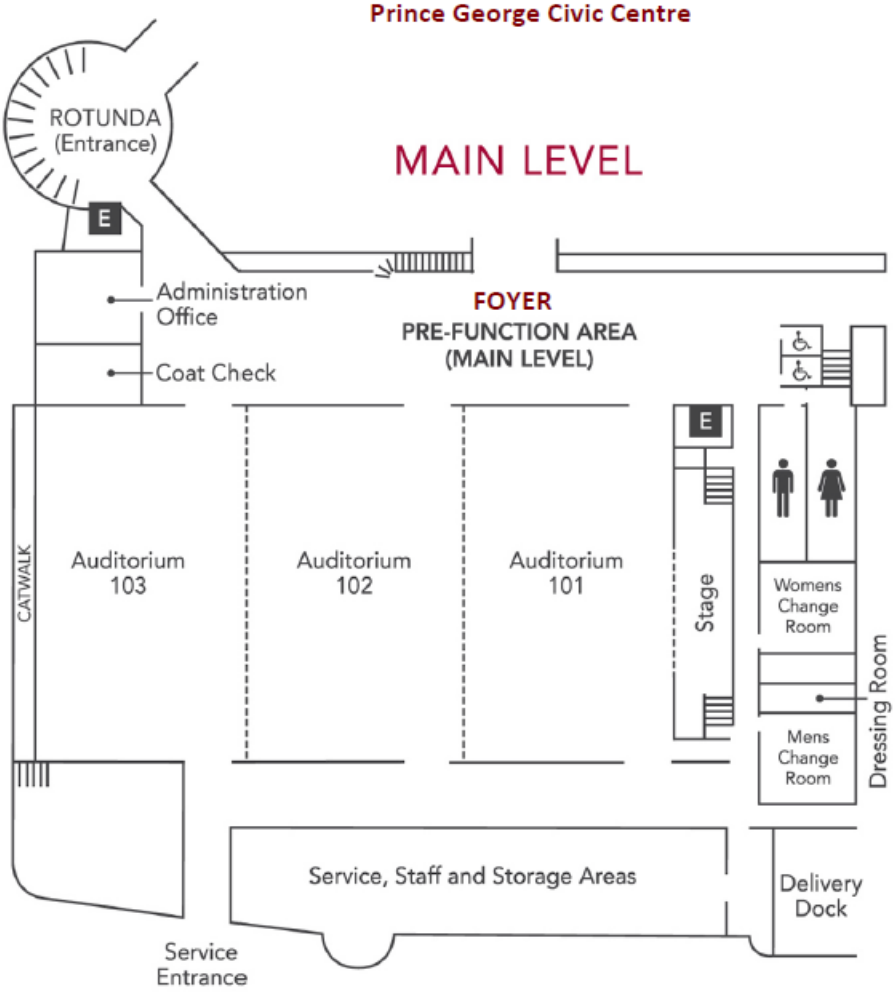
PROGRAM AT A GLANCE

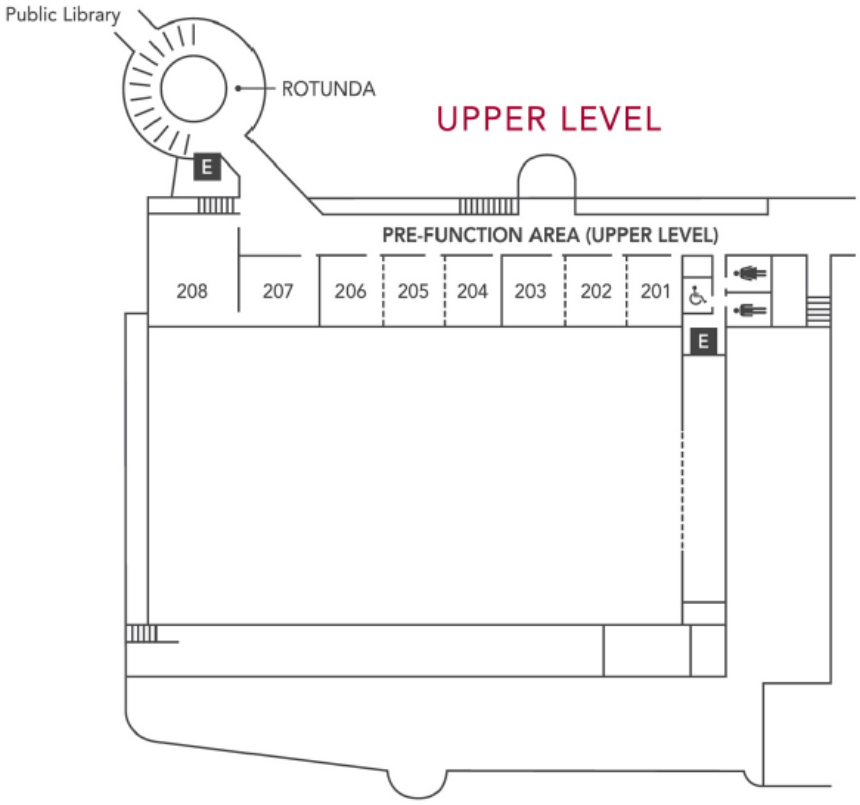
FRIDAY, November 15, 2013		
0730 – 1200	Conference Registration	*Civic Centre, Foyer*
0730 - 0830	Breakfast Buffet / Breakfast Tables	*Civic Centre, Rm 102*
0830 - 0945	CHAIR: MARTHA MACLEOD **PLENARY SPEAKER:** Dr. Margot Parkes, *University of Northern British Columbia* ***"Upstream Is a Place:*** ***Collective Learning and Stories about Watersheds, Well-Being and the Environment as a Context For Health"***	*Civic Centre, Room 102*
	PLENARY PANEL: Ronald Chapman, *Vice President*, *Northern Heatlth* Sandra Harris, *Wetsuwet'en First Nations* Terry Robert, *Fraser Basin Council*	
	PLENARY PANEL DISCUSSION	
0945 – 1000	**Refreshment Break and Poster Viewing**	*Room 102 & Foyer*
1000 – 1200	**CONCURRENT SESSIONS:** A) Rural Health Issues B) Health Promotion Interventions C) Education of Rural Health Professionals D) Research Methodologies and Knowledge Translation	 *Room 201-203* *Room 204-206* *Room 207* *Room 208*
1200 – 1215	**CLOSING REMARKS:** Geoff Payne, *Co-Lead, UNBC Health Research Institute* Fraser Bell, *Vice President, Planning and Quality, Northern Health* *Co-Chair NH/UNBC Steering Committee*	*Civic Centre, Room 102*

Shane Lake in Forests for the World, Prince George

Photocourtesy of UNBC Communications

Prince George Civic Centre





FULL PROGRAM

Stories of RURAL HEALTH through Knowledge, Research & Collaborative Action

FULL CONFERENCE PROGRAM

THURSDAY November 14, 2013 - Morning		
0730 – 1600	Conference Registration	*Civic Centre, Foyer*
0730 - 0830	Continental Breakfast	*Room 101*
0830 - 0845	**TRADITIONAL WELCOME :** Lheidli T'enneh Band	MORNING CHAIR: TAMMY HOEFER
0845 - 0900	**OPENINGS AND GREETINGS:** Cathy Ulrich, *CEO Northern Health;* Ranjana Bird, *VP Research UNBC;* Bonnie Jeffery, *CRHRS Chair*	
0900 - 1000	**KEYNOTE SPEAKER:** Ivan Coyote**,** *Award Winning Author/Storyteller* ***"Chest Pains and Rest Stops: One Big Family, One Long Highway, and One Little Hospital"***	*Civic Centre, Room 102*
1000 - 1020	**Refreshment Break and Poster Viewing**	*Room 102Foyer*
1020 – 1200	**Concurrent Sessions**	

Rooms:	***201-203***	***204-206***
	A) FOOD AND WATER CHAIR: SHINJINI PAL / JANNA SCHURER	**B) CHILDREN AND YOUTH 1** CHAIR: ROBIN REPTA / AMANDA FROEHLICH CHOW
1020 - 1040	***Pal -** *Using Molecular Methods to Quantify Cyanobacteria and Cyanotoxin Production Over Time*	**Hoffman -** *Indigenous Spiritual Health: "Doing The Footwork"*
1040 – 1100	***Schurer -** *Parasite Sero-Surveillance: Indigenous Health in Remote Versus Rural Communities*	**Holyk/Harder -** *The Carrier Sekani Youth Suicide Research Project: Meaningful Involvement of Community in Research from Inception to Knowledge Translation*
1100 – 1120	**Fernando -** *Role of Hazard Analysis Critical Control Points (HACCP) in Traditional Food Systems for Northern, Rural and Aboriginal Populations*	***Repta -** *Fostering Healthy Dating Relationships During Adolescence*
1120 – 1140	**Martin -** *Food Gone Foul: Balancing Food Safety and Food Security*	**Jenkins -** *Using Integrated Knowledge Translation to Develop a Youth-Driven Mental Health Promotion Initiative*
1140 - 1200	**Fernando -** *Listeriosis Attributed to Smoked Salmon in Northern British Columbia*	**Wali -** *Prevalence of Intimate Partner Violence in Mountain Villages of Gilgit Baltistan*
Rooms:	***207***	***208***
	C) PROFESSIONIAL PRACTICE CHAIR: LINDA AXEN	**D) GERIATRICS AND HEALTHY AGING** CHAIR: JUANITA BACSU / ALLISON CAMMER
1020 - 1040	**MacLeod -** *Who Are The Nurses Working in Rural and Small Town Canada?*	***Bacsu/Jeffery/Novik -** *Healthy Aging in Place: Perceptions of Rural Older Adults*
1040 – 1100	**Mian -** *How Physicians Working in Rural Emergency Departments in Four Canadian Regions Perceive Rurality? Insights from the Trauma Care Study*	**Jokinen -** *Adults Aging with Developmental Disabilities: Improving Healthcare Through Research, Policy and Practice Initiatives*
1100 – 1120	**Hardy -** *Professional Practice Characteristics and Satisfaction of Psychologists in Rural, Intermediate, and Urban Canada*	**Agoston -** *Rural Northern Nurses Self Perceived Competencies in Addressing the Spiritual Needs of The Patients With Life Limiting Conditions*
1120 – 1140	**Koren/Mian -** *The Role of Nurse Practitioners in Northern and Rural Ontario*	**Freeman -** *Examining Caregiver Distress of Informal Caregivers of the Oldest Old Receiving Community Home Care Services*
1140 - 1200	**MacKinnon/Moffitt-** *Informed Advocacy and Nursing Practice in Rural, Remote and Northern Communities*	**Hemingway/Margolin/Halikowski/McAlpin -** *Using Arts-Based Research to Encourage Meaningful Dialogue about Gender, Social Inequity, Recovery and Mental Illness Among Older Northern Women*

FULL CONFERENCE PROGRAM

THURSDAY November 14, 2013 - Afternoon		
1200 - 1300	**Lunch Break and Poster Viewing**	*Room 101, 102 & Foyer*
1300 - 1345	**PLENARY SESSION:** First Nations Health Authority ***"Communities, Collaboration, and Quality Care"*** CHAIR: RHEANNA ROBINSON	*Civic Centre, Room 102*
1345 - 1400	**Break / Transition Time**	
1400 – 1520	**Concurrent Sessions**	
Rooms:	***201-203***	***204-206***
	A) COMMUNICATIONS IN HEALTHCARE DELIVERY CHAIR: TAMARA CHECKLEY	**B) CHILDREN AND YOUTH 2** CHAIR: JOANNA PATERSON
1400 – 1420	**alZahir -** *Smartphones and Wireless Technology Driven Remote Health Delivery*	**Lightfoot –** *Young Adult Knowledge of Preconception Health*
1420 – 1440	**Breton -** *How Information and Communication Technologies Can Influence Nursing Practice in Peripheral and Remote Areas? A Comparison Of Two Cases*	**McFarlane/Wagar -** *Day Surgery for Early Childhood Caries in Canada, 2010-2011 to 2011-2012*
1440 – 1500	**Allgaier -** *Challenges in Delivery of Library Services to Remote Health Facilities*	***DeWit -** *High-Risk Environments and Agricultural Injury in Children and Youth*
1500 – 1520	**Shapiro -** *Social Media, Recruitment and Patient Education in Northern Ontario*	**Stewart/Pighini -** *Connecting the Dots: From Parent Voices to Developmental Impacts*
Rooms:	***207***	***208***
	C) COLLABORATIVE TEAMS AND PARTNERSHIPS CHAIR: RACHAEL WELLS	**D) ACCESS TO SPECIALTY SERVICES IN RURAL AREAS** CHAIR: TANIS HAMPE
1400 – 1420	**D. Smith/Anton -** *Quality Improvement Science Drives Primary Care Team Coaching in the North*	**McElfish -** *Increasing Rural and Rural Minorities Participation in Breast Cancer Research Studies*
1420 – 1440	**Hanlon -** *Partnering for Primary Health Care Integration in Northern B.C. Communities: How Will We Know When We Get There?*	**Miles/deSousa/Huges -** *Perinatal Care in Northern Rural Communities: How the Power of a Single Journey Can Inspire System Transformation*
1440 – 1500	**Medhurst/Tillotson -** *Embracing Complexity and Transformation: Building Successful Collaborations in Rural and Remote Settings for the Purpose of Cancer Prevention*	**Klassen-Ross -** *Northern Rapid Access to Consultative Expertise (RACE) Line - Then and Now*
1500 – 1520	**Banner/Janke -** *Atrial Fibrillation in Rural and Northern Canada: Building a Collaborative Research Team*	**Olson -** *Patterns of Radiation Oncology Follow-up in Canada*
1400 – 1520	**E) FIRST NATIONS HEALTH AUTHORITY – CONTINUING THE DIALOGUE (*Room 102*)** CHAIR: RHEANNA ROBINSON	
1520 - 1530	**Transition Time**	

*PHARE Trainee

FULL CONFERENCE PROGRAM

THURSDAY November 14, 2013 - Afternoon (continued)			
1520 - 1530	◆ ◆ ◆ **Transition Time** ◆ ◆ ◆ ◆		
1530– 1650	**Concurrent Sessions**		
Rooms:	***201-203***	***204-206***	
	A) RURAL PROGRAMS CHAIR: TAMMY HOEFER	**B) PATIENT JOURNEYS** CHAIR: RACHAEL WELLS	
1530 – 1550	**Wong/Urquhart -** *Collaborating for Change: Making Project Portfolio Management Real in Northern Health and UNBC*	**Banner/Janke/Hadi -** *Managing Atrial Fibrillation in Rural and Northern Alberta and British Columbia: A Qualitative Study*	
1550 – 1610	**Salmons -** *Once Upon a Prenatal Registry Program*	**Rush -** *The Healthcare Journeys of Rural Older Adults with Atrial Fibrillation*	
1610 – 1630	**Lightfoot –** *Satisfaction With a Northern Satellite Paediatric Cardiology Clinic*	**Transken -** *ARTivism for Individual, Group, and Organization Health*	
1630 – 1650		**Howard -** *The Depth of Water Requires Knowledge: Listening to the Voices of the HIV Patient Journey*	
Rooms:	***207***	***208***	
	C) COMMUNITIES AND GOVERNMENT PARTICIPATION CHAIR: TAMARA CHECKLEY	**D) PLACE-BASED HEALTH ISSUES** CHAIR: PENNY ANGUISH	
1530 – 1550	**Schiff –** *Systems-level Collaborative Governance for Housing and Food Security in Northern and Remote Communities*	**Wrath/Burmeister -** *Illicit Drug Use in a Small, Northern Rural BC Community: Smaller Communities ARE Different*	
1550 – 1610	**Blanchette -** *Valemount Walks Around the World: A Partnership to Develop a Healthier Community*	**Anguish -** *Improving Flow in a Rural Health Service Delivery Area to Provide "Care In The Right Place"*	
1610 – 1630	**Schiff -** *Developing Resiliency Indices in the Context of Rapid Economic Growth in Northern and Remote Communities*	**Shapiro -** *Culture of Telemedicine: Explaining a New Paradigm*	
1630 – 1650	**Mian -** *Addressing (In) Equity in Health Outcomes for Children with Diabetes in Ontario: How Much the Health System Can Do?*	**Xiao -** *Validation of a Community Support Scale and Its Role in Childhood Asthma*	
1700 - 1800	**Annual General Meeting CRHRS**		*Civic Centre, Room 207*
1730 - 1840	**Poster Viewing and Discussion**		*Room 102 & Foyer*
1815 – 1845 **1845 – 1945** **1945 - 2130**	**CONFERENCE BANQUET** Cocktails - Cash Bar Banquet, CHAIRS: TAMMY HOEFER, RACHAEL WELLS Presentation of Awards		*Civic Centre, Room 101*

FULL CONFERENCE PROGRAM

FRIDAY November 15, 2013		
0730 – 1200	Conference Registration	*Civic Centre, Foyer*
0730 – 0830	Breakfast Buffet / Breakfast Tables	*Room 102*
0830 – 0945	CHAIR: MARTHA MACLEOD **PLENARY SPEAKER:** Dr. Margot Parkes, *University of Northern BC* ***"Upstream Is a Place: Collective Learning and Stories about Watersheds, Well-Being and the Environment as a Context For Health"*** **PLENARY PANEL:** Ronald Chapman, *Vice President*, *Northern Heatlth* Sandra Harris, *Wetsuwet'en First Nations* Terry Robert, *Fraser Basin Council* **PLENARY PANEL DISCUSSION**	*Civic Centre, Room 102*
0945 – 1000	**Refreshment Break and Poster Viewing**	*Room 102 & Foyer*
1000 – 1200	**Concurrent Sessions**	
Rooms:	***201-203***	***204-206***
	A) RURAL HEALTH ISSUES CHAIR: ARCADIO VIVEROS-GUZMAN / PHILIPPE ROY	**B) HEALTH PROMOTION INTERVENTIONS** CHAIR: TANIS HAMPE
1000 – 1020	***Viveros-Guzman -** *Latino Temporary Farmworkers in Saskatchewan: Social Aspects of Work Experiences, Occupational Health, and Sustainability*	**Martin -** *Reducing Health Inequities: Innovative Public Health Approaches to Promote Health Equity*
1020 – 1040	**Rennie/Hagel -** *A Study of the Respiratory Health of First Nations Children Living in Rural Saskatchewan: Methodological Approaches and Comparisons with the Saskatchewan Rural Health Study - Children's Component*	**Seaton -** *Smoking Patterns Among Surgical Patients at Two Northern BC Hospitals: Implications for Supporting Smoking Cessation*
1040 – 1100	**Lefresne/Olson –** *Management of Stage II and III Rectal Cancers in BC: Is There a Rural-Urban Difference?*	**Viney/Taylor/Medhurst -** *Implementation of the "Stop Smoking Before Surgery" Initiative in Northern British Columbia*
1100 – 1120	***Roy -** *Male Farmers Negotiating Help-Seeking: How They Do It? A Qualitative Study Connecting Rurality, Gender and Health*	**Taylor/Lamont -** *Clinical Tobacco Intervention Program (CTIP) and Tobacco Education Action Module (TEAM): Easy to Use Tools to Support Tobacco Cessation (Brief Intervention and Intensive Counselling) in Professional Practice and Community Settings*
1120 – 1140	**Olson -** *Use of Single Fraction Palliative Radiotherapy for Bone Metastases: Population Based Practice Patterns Over a Five Year Period*	**Dickinson/Moffitt -** *Exclusive Breastfeeding Knowledge Translation among Tlicho Mothers: A Community Based Participatory Action Approach*
1140 – 1200	**Rogers -** *A Study in the Effectiveness of Online CPR Recertification Training for Rural and Remote Nurses in Canada*	**Reschny -** *The Role of Primary Health Care Services in Managing Factors that Contribute to Greater Risk of Acquiring or Spreading HIV/AID Among People who Inject Drugs*
1200 – 1215	**CLOSING REMARKS:** Geoff Payne, *Co-Lead, UNBC Health Research Institute;* Fraser Bell, *Vice President, Planning and Quality, Northern Health* *Co-Chair NH/UNBC Steering Committee*	*Civic Centre, Room 102*

*PHARE Trainee

FULL CONFERENCE PROGRAM

FRIDAY November 15, 2013 (continued)		
0730 – 1200	Conference Registration	*Civic Centre, Foyer*
0730 – 0830	Breakfast Buffet / Breakfast Tables	*Room 102*
0830 – 0945	CHAIR: MARTHA MACLEOD **PLENARY SESSION:** Dr. Margot Parkes, *University of Northern British Columbia* ***"Upstream Is a Place":*** ***Collective Learning and Stories about Watersheds, Well-Being and the Environment as a Context For Health"***	*Civic Centre, Room 102*
	PLENARY PANEL: David Bowering, *Northern Heatlth*; Sandra Harris, *Wetsuwet'en First Nations*; Terry Robert, *Fraser Basin Council*	
	PLENARY PANEL DISCUSSION	
0945 – 1000	**Refreshment Break and Poster Viewing**	*Room 102 & Foyer*
1000 – 1200	**Concurrent Sessions**	
Rooms:	***207***	***208***
	C) EDUCATION OF RURAL HEALTH PROFESSIONALS CHAIR: STACEY LOVO GRONA / YVONNE DEWIT	**D) RESEARCH METHODOLOGIES AND KNOWLEDGE TRANSLATION** CHAIR: TAMMY HOEFER
1000 – 1020	**Ricketts -** *GP Surgery: Anyone Interested?*	**Burton -** *"Performative Research" Developing Local Perspectives on Local Problems*
1020 – 1040	**Hughes/Miles -** *The Path Forward for Inter-Professional Education and Practice in Northern Health*	**Goldsmith -** *The Methodological Importance of Rural and Remote Health Research*
1040 – 1100	**J. Smith -** *A Double Whammy! New Baccalaureate Nurse Graduates' Transition into Rural Nursing*	**Fraess- Phillips -** *Implementation of Best Practice Guidelines: A Review of the Literature*
1100 – 1120	***Lovo Grona -** *Continuing Interprofessional Education Outreach For Rural And Remote Locations*	**Banner -** *Realist Knowledge Synthesis: Theoretical and Practical Approaches*
1120 – 1140	**Emami -** *Addressing the Shortage of Rural Dental Practice: Learning from an Effective Discussion Forum*	**Fyfe -** *Appropriate Provision of Anti-D Prophylaxis to Rh-Negative Pregnant Women: A Scoping Review*
1140 – 1200	**Sharifian -** *Rural Dental Practice: Quebec Dental Medicine Students' Perspectives*	**Derksen/Haque -** *Critical Care Environmental Scan Data Repository*
1200 – 1215	**CLOSING REMARKS :** Geoff Payne, *Co-Lead, UNBC Health Research Institute* Fraser Bell, *Vice President, Planning and Quality, Northern Health* *Co-Chair NH/UNBC Steering Committee*	*Civic Centre, Room 102*

*PHARE Trainee

POSTER PRESENTATIONS

Prince George Civic Centre Room 102 and Foyer

1. ***Bascu/Viger –** *Healthy Aging in Cuba: A Rural Perspective*
2. **Barg/Mann -** *Evaluation of the Critical Care Response Team at UHNBC*
3. **Brutenic Fowler -** *Near-Infrared Spectroscopy for Northern and Rural Health*
4. ***Cammer -** *Evolution of a Community-Based Participatory Approach in a Rural and Remote Dementia Care Research Program*
5. ***Da Silva Ferreira -** *The Social Uses of Alcohol in Saint- Éphrem-de-Beauce, QC: An Ethnography Study*
6. ***Dallaire -** *Portrait of Trauma Care in Rural Areas*
7. **Dosanjh/Healy -** *Northern Health's Approach to Partnering with Local Governments*
8. ***Enright -** *Evaluation of a Reminiscence Intervention via Telehealth Videoconferencing for Caregivers of Persons with Dementia*
9. **Foucher/Schilling -** *Men's Health – Injury Prevention Champions*
10. ***Froehlich – Chow -** *Healthy Start: Evaluation of a Physical Activity and Healthy Eating Intervention in Rural Childcare Centres*
11. ***Gordon -** *Place as a Determinant of Health for Rural Senior Women in Southwestern Saskatchewan*
12. **Imtiaz -** *Economic Empowerment of Women in Himalayan Mountain Villages: Impact on Mental Health*
13. **Innis/Reeds -** *Improving the Cardiac Patients' Experience in Northern BC: Quality Improvement Meets Research . . . A Match Made in Heaven*
14. **Jeffery -** *Developing a Framework to Support Rural Healthy Aging*
15. **Kandola -** *Access to Pci in a Rural-Urban Setting In Northern British Columbia: Examining the Impact of Time Delay Post- Thrombolysis on Patient Outcomes and Whether 'The Sickest Go The Quickest'*
16. **Klassen/LeFebvre -** *Exploring the Impact of an Inpatient Diabetes Educator on Diabetic Outcomes in Hospital: A Review of Best Evidence*
17. ***Layani -** *The Measurement of Quality Indicators of Care in Rural Emergency Departments in Quebec: An Innovative and Useful Tool to Generate Quality Care*
18. ***Lovo Grona -** *Examining Best Practices in Clinical Rehabilitation Interventions for Patients wth Low Back Disorders in Rural or Remote Settings Using E- Health Technologies: A Systematic Review*
19. **MacLeod -** *Stories of How: Processes of Transforming Primary Health Care in a Rural and Northern Health Region*
20. ***Olaniyi -** *Needs Assessment for TB and HIV/AIDS Co-infection Control Program in Saskatchewan*
21. ***Oluwole -** *Agricultural Exposure and Asthma Severity among Children in Saskatchewan*
22. **Osei/Strudsholm -** *What is the Story in the North about Infant Immunization?*
23. **Parsonage/ McCormack/Reiffarth/Staub -** *National Surgical Quality Improvement Program (NSQIP) and Nursing Practice*
24. **Paterson -** *Students Who Stay: Stories of Northern Medical Program Graduates and Place Integration*
25. **Russell -** *Exploring the Seasonal Dynamics of Food Security Among the Homeless of Northern British Columbia*
26. **Shah -** *Hypertension Prevalence, Awareness, Treatment, and Control, in South Asian Rural Immigrants in United Arab Emirates*
27. **Sharifian -** *Rural Dental Practice: A Scoping Review*
28. **Sokolowski -** *Nurse-Led Poster Challenge: Breastfeeding Support in a Virtual World*
29. **Sra -** *Developing a Service Process Costing Model –A Study of a Service Process at Northern Health (BC)*
30. **Swain -** *Health and Safety Issues of Nurses in Northern Remote Nunavut*
31. **Turnbull/Paterson -** *Developmental Evaluation in Northern Health: A Critical Component to System Transformation*
32. **Van der Meer -** *Examining Lifestyle Information Needs Among Rural Breast Cancer Survivors in Northern British Columbia: A Cross- Sectional Study*

POSTER PRESENTATIONS (continued)

Prince George Civic Centre Room 102 and Foyer
33. **Woodbeck –** *Exploring Bottlenecks in the Diagnosis and Treatment of Lung Cancer in Northern British Columbia* 34. **Wright/Bertschi -** *Methadone Maintenance Treatment Services Environmental Scan In Northern BC* 35. *__Ye (M) -__ *DDT Exposure and Lung Function in Agriculture in Canada* 36. **Zahir -** *Towards a New Index for Healthcare Facilities' Sustainability in Canada* *PHARE Trainee

GUIDELINES FOR PRESENTERS

ORAL PRESENTATIONS

1. **Time allotted** for presentations is **15 minutes,** plus **5 minutes** for discussion.
2. The **order of presentations** in the assigned session will follow the **order of the program.**
3. MS Office 2010 or MS 2013 PPT (Windows 7 or 8) **audio-visual equipment** is available for all sessions.
4. Prior to the session start time, presentations must be **uploaded** to the Laptop in the room in which you are presenting. Please **be present at your session at least 10 minutes prior to the start of the session. Please identify yourself to the Session Chair.**
5. If you encounter **any difficulties, consult the Session Chair** or the **Registration Desk.**
6. Presenters are responsible for ensuring your presentation is **suitably prepared.**

POSTER PRESENTATIONS

1. Posters must be set up between 1400 to 1800pm (2 to 6 pm) on Wednesday, November 13 and removed after 1215 pm on Friday, November 15, 2013.
2. Poster size is 4 ft wide by 3 ft high.
3. At least one (1) Author/Presenter must be available for sessions to discuss the project.
   Date/Times of Viewing:
   Main Viewing and Discussion - Thursday, November 14, 1730pm – 1845pm
   Thursday, November 14, 1000am – 1020am, 1200pm – 1300pm
   Friday, November 15, 945am – 1000am.
4. You are responsible for ensuring your poster is suitably prepared for display.
5. No audio-visual equipment is available for poster presentations.
6. The poster board takes push pins and Velcro only. Push pins will be provided for poster presentations.
7. Your poster will be assigned a poster board. Please check the boards for your poster number.

SAVE THE DATE

7TH INTERNATIONAL SYMPOSIUM:

SAFETY & HEALTH IN AGRICULTURAL & RURAL POPULATIONS: GLOBAL PERSPECTIVES

CCHSA Canadian Centre for Health and Safety in Agriculture
CCSSMA Centre canadien de santé et sécurité en milieu agricole

The Seventh International Symposium
"Safety & Health in Agricultural & Rural Populations: Global Perspectives"

Addressing issues and challenges facing the health and safety of rural and working people in the twenty first century.

OCTOBER 19 - 22, 2014

SASKATOON, SK, CANADA

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Canadian Association for Research on Work and Health
CARWH ACRST
Association Canadienne de Recherche en Sante au Travail

CRHRS SCRSR
Canadian Rural Health Research Society
Société canadienne de recherche en santé rurale

UNIVERSITY OF SASKATCHEWAN

ABSTRACTS / ORAL

Stories of RURAL HEALTH THROUGH Knowledge, Research & Collaborative Action

ABSTRACTS – ORAL PRESENTATIONS

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

THURSDAY NOVEMBER 14, 2013	
A) Food and Water **Room 201-203, Civic Centre** **Chairs:** Shinjini Pal/Janna Schurer	**1020 – 1200**

5128

Using Molecular Methods to Quantify Cyanobacteria and Cyanotoxin Production Over Time

Shinjini Pal, *PHARE, Department of Biology, University of Ottawa;* **Dr. Frances Pick,** *Department of Biology, University of Ottawa*

Reports of cyanobacterial blooms are increasing across Ontario and the rest of the world. Cyanobacteria prefer warm temperatures and are also related to high nutrient loads in freshwater bodies. Blooms are particularly troublesome if they contain toxin-producing species. If ingested, cyanotoxins, such as the ubiquitous microcystin, can lead to liver and neurological problems. The factors leading specifically to toxic blooms remain unclear. Blooms are being reported further north than before indicating the potential start of a trend in remote areas in Canada's north concurrent with global warming. In these areas, communities often rely on lakes for both drinking water and foods such as fish and water fowl.

The aim of this project is to determine whether total cyanobacteria and toxin-producing cyanobacteria have been increasing through time as measured with molecular techniques, using accumulated lake sediment as a historical record. We found that lakes in the Ottawa-Gatineau region showed increases in total cyanobacteria, as quantified using gene copy numbers, over the last 200 years. This technique also enabled the detection of cyanobacterial genes in lakes situated in remote Northern Ontario, previously not prone to cyanobacteria, which could be related to the warming trend and human activity. We also found that toxin-producing cyanobacteria also show increases in nutrient-rich lakes, using the microcystin-producing gene as a genetic marker.

The results of this endeavor will lead to a better understanding of the impact of climate warming on cyanobacterial blooms and diversity. The development of a protocol in using genetic markers for tracking changes in cyanobacterial abundance and diversity will also be useful for monitoring current changes and understanding historical patterns. Molecular techniques may provide earlier detection of blooms and toxicity in comparison to water chemistry analysis.

5127

Parasite Sero-Surveillance: Indigenous Health in Remote Versus Rural Communities

Janna Schurer, *PHARE, Department of Veterinary Microbiology, Western College of Veterinary Medicine, University of Saskatchewan;* **Momar Ndao,** *National Reference Centre for Parasitology, Montreal, QC;* **Emily Jenkins,** *Department of Veterinary Microbiology, Western College of Veterinary Medicine, University of Saskatchewan*

Parasites infectious to both people and animals are ubiquitous and, at times, seriously impact the health of their hosts. In Canada, people residing in northern, rural and remote communities may be more likely to encounter these parasites, due to unique risk factors such as contact with wildlife, limited medical/veterinary services, contaminated water and large free-roaming dog populations. We explored the differences in human exposure to four zoonotic parasites (Toxocara, Toxoplasma, Echinococcus, and Trichinella) between a northern, remote community (N=201), and a southern, rural community (N=120); both in Saskatchewan. We also surveyed participants on topics relating to diet, companion animal husbandry, contact with wildlife, and utilization of veterinary services, and then used logistic regression to identify associations between these risk factors and sero-status. Companion animals in the two communities were screened for intestinal and blood-borne parasites, in order to measure their potential role as sources and/or sentinels of parasite transmission.

Overall, people and animals in the northern community exhibited far higher prevalence of exposure and/or infection to zoonotic parasites than those residing in the southern community. A variety of risk factors for parasite exposure were identified, including feeding a non-commercial diet to pets, age, and contact with wildlife. This research supports the need for multidisciplinary collaborations, especially between human and animal health professionals, and the need for One Health policies that will reduce exposure to zoonotic parasites.
Results and Conclusions: Key informants provided expert opinion on specific telemedicine services and downstream conditions as well as rural and urban communities in northern Ontario most likely to demonstrate an impact. On-going research will examine administrative health service data to determine if such an impact can be detected.

5085

Role of Hazard Analysis Critical Control Points (HACCP) in Traditional Food Systems for Northern, Rural and Aboriginal Populations

Rohitha Fernando, *MPH, FIH, CNM, Support Services Manager, North West HSDA East Cluster, Northern Health Authority and PhD Student, College of Health Sciences,Trident University, CA, USA*

Objective: To find documented evidence for HACCP system to ensure food safety within the promotion of country or traditional foods consumption as a solution to food insecurity for Northern, Rural and Aboriginal people.
Study design and method: Literature review with recent, relevant and peer reviewed work published in professional journals.
Discussion: Food insecurity is an exigent public health issue for Northern, Rural and Aboriginal populations. High rates of poverty; the effects of global climate change and environmental pollution on traditional food systems; and high rates of diet-related diseases are the multi factorial causes cited in the literature base as barriers to food security in addition to dwindling knowledge about the local food systems as a result of disruptions to intergenerational transfer, past policies and practices of forced assimilation. There are unique food security considerations for Aboriginal people related to the harvesting, sharing and consumption of country or traditional foods, which impact the four pillars of food security: access, availability, supply and utilization. Wide varieties of non-wood forest products (berries, wild mushrooms, medicinal plant, craft species) in addition to game and fish can easily extracted from neighbourhood forests which could significantly contribute to health, food safety and economic development. While ensuring food safety from farm to fork, HACCP and public health, hand in hand, have operated with conceptualizations of food security that were developed in non-Aboriginal contexts. They do not take full account of the traditional food practices of Aboriginal people or Aboriginal conceptualizations of food security, hence food safety.
Conclusion: Application of HACCP for traditional food systems cannot be completely utilized under currently prevailing food safety legislation, industry practices and safety perceptions among all stakeholders, quantitatively and qualitatively, if consumption of country and traditional food is promoted among Northern, Rural and Aboriginal populations as a solution to food insecurity.

5093

Food Gone Foul: Balancing Food Safety and Food Security

Wanda Martin, *RN, PhD Candidate, University of Victoria*

Changes in the meat inspection regulation a few years ago sparked a debate on the challenges in delivering food safety and food security core public health function programs in BC. This qualitative nursing research is an exploration of those challenges.
Through this research, a better understanding of how conflicting groups of people can work together across diverse philosophical positions is provided. I illustrate the complex motives behind food safety regulations and expose the neoliberal agenda favouring market forces over health equity. I argue that food safety regulations are not set with a focus on protecting people form unsafe food but are a vehicle for providing confidence for the market and international trading partners at the cost of health and welfare of small-scale producers in rural and remote communities. However, those working in Northern Health have a reputation of being on the cutting edge of collaborative work between food safety and food security.
In this presentation I will present my study findings and engage in dialogue with conference participants on how to improve food security in northern BC, and how to translate successes in Northern Health to other Health Authorities in the province.

5086

Listeriosis Attributed to Smoked Salmon in Northern British Columbia

Rohitha Fernando, *MPH, FIH, CNM, Support Services Manager, North West HSDA East Cluster, Northern Health Authority and PhD Student, College of Health Sciences,Trident University, CA, USA*

Objective: To identify risk posed by Listeria monocytogenes.
Study design and method: Literature review with recent, relevant and peer reviewed work published in professional journals.
Discussion: Smoked salmon, one of the most country and traditional food among Northern, Rural and Aboriginal populations of British Columbia, could be contaminated with Listeria monocytogenes. Listeriosis is an infection caused by the bacterium Listeria monocytogenes. First described as a human pathogen in the 1920s, listeriosis recently became a national public health issue recently as the outbreak resulted in 57 confirmed cases and 22 confirmed deaths and millions of dollars spent for corrective actions. Smoking is a cottage industry in northern British Columbia. The industry use of time temperature controls and chemicals to control monocytogenes may not be consistent in processing smoked salmon at home. There are also many different methods applied in processing smoked salmon. The elderly, pregnant women and people with weakened immune systems are especially susceptible. Listeriosis is a rare but serious illness and can sometimes reach mortality rates of 50% although for most people the risk posed by listeria is very low. Due to the relatively long incubation period that can vary depending on the mode of transmission and dose received, but typically ranges from 1 to 4 weeks and can be as high as several months the cases may not be detected and attributed to the correct epicentre. Hazard Analysis Critical Control Points (HACCP) could prevent and minimize the threat for traditional and home preparations.
Conclusion: Smoked salmon could be produced safe enough for human consumption with optimal use of HACCP system.

THURSDAY NOVEMBER 14, 2013	
B) Children and Youth 1 **Room 204-206, Civic Centre** **Chair:** Robin Repta/Amanda Froehlich Chow	**1020 – 1200**

5100

Indigenous Spiritual Health: "Doing the Footwork"

Ross Hoffman, *Associate Professor, First Nations Studies Department, University of Northern British Columbia*

We have known for a long time that spirituality is an important component in the field of Aboriginal Health. Researchers have recently begun to talk about the importance of Indigenous Spiritual Health and its relationship to resiliency. If we are going to use the term Indigenous Spiritual Health in our work, it will be important for us to begin to consider the question: What does that mean?
The objective of this presentation is to facilitate thought and discussion relative to this broad question and other more specific questions such as: Is Indigenous Spiritual Health entirely culturally specific? Are there basic principles/teachings that transcend the diversity of Aboriginal cultures? How does one come to know Indigenous Spiritual Health? How can knowledge translation take place in a respectful and ethical manner? What does Indigenous Spiritual Health mean in the context of Health Services delivery? Taking the time to reflect upon and share our thoughts relative to these questions is part of the process of "Doing the Footwork" that will help us to build our own capacity to support spiritual health in our work environments.
This presentation will incorporate understandings the facilitator has gained through his years of apprenticeship within a Cree/Arapaho spiritual tradition as well as what has been gleaned through his academic research.

5105

The Carrier Sekani Youth Suicide Research Project: Meaningful Involvement of Community in Research from Inception to Knowledge Translation

Dr. Travis Holyk, *Director of Research, Carrier Sekani Family Services;* **Dr. Henry Harder,** *School of Health Sciences, University of Northern BC*

The youth suicide research project, funded by the Canadian Institutes for Health Research, Institute for Aboriginal Peoples Health, was a six year project designed to investigate the effectiveness of community-based interventions in preventing suicide. The project is an example of an effective partnership between a community based organization, Carrier Sekani Family Services (CSFS) and the University of Northern British Columbia (UNBC).

The project investigated the effectiveness of community-based interventions in preventing suicide and tracks youth views of self-esteem, depression and other indicators over the course of the project. The knowledge gained from this research project will help guide CSFS and its member communities in offering programs that will assist in reducing the number of suicides in our communities. The project was launched in 2006 with a focus group meeting of 68 youth, knowledge holders and service providers who decided on the goals for the project and indicators of success. From the participation in the focus groups, a Community Advisory Council was formed consisting of one Elder and one Youth from each CSFS community to guide the research project for its duration. Involving community in the project design resulted in practical benefits to community including resource materials such as a youth suicide manual and the creation and provision of Culture Camps for youth. Due to the community focus of this project and the involvement of 11 culturally and geographically diverse First Nations, a unique knowledge translation strategy was designed, delivered and evaluated.

The project culminated with a winter games event. The Winter Games was the result of the youth suicide research team trying to find innovative ways to share the lessons we learned throughout the youth suicide project. It created a fun atmosphere that brought people together and enabled us to discuss the youth suicide project in a way that is different from standard community meetings. Our presentation will report on the research methods employed, focusing on how information was relayed back to community throughout the process.

5180

Fostering Healthy Dating Relationships During Adolescence

Robin Repta, *PHARE, Interdisciplinary Studies Graduate Program, University of British Columbia*

Adolescent dating experiences, defined as short or long-term romantic and/or sexual encounters during the teenage years, have generally been overlooked by health researchers as part of the social context in which health behaviours develop. This is troubling given that research has shown that relationship breakups are the most common trigger of a first major depressive disorder episode for teenagers, and that relationship dynamics, including dating violence, substance use and “risky” sexual health practices, are often established during adolescence and last into adulthood. The influence of contextual factors such as gender and place on adolescent dating experiences is also understudied and under theorized; existing studies have drawn on categorical conceptualizations of gender and have generally neglected to consider the impact of geographic/social factors.

The objective of this study is to understand how youth characterize and experience dating relationships during adolescence and to develop a nuanced understanding of the ways that contextual factors (e.g., gender, place) shape experiences of dating for Canadian youth. To understand the impact of gender and place on young people’s dating experiences, I conducted an ethnographic study in a small town in Northern British Columbia. In addition to observational data, I conducted 18 qualitative interviews with a diverse group of young people aged 14-19 years. The interviews asked young people about the dating ‘scene’ where they live, their own dating experiences, and what can be done to help young people have healthy dating experiences.

Using Connell’s theory of gender relations and Massey’s theory of place, the transcribed interviews were probed to better understand the impact of contextual factors on youths’ experiences and how to help young people navigate this important phase of life. Three main themes emerged from the data: gendered dating norms and heteronormativity, space place and trauma, and a lack of support for youth. In describing these themes, the data from this study illustrate how contextual factors contribute to enabling and constraining environments for young peoples’ dating experiences, with implications for youth health.

5080

Using Integrated Knowledge Translation to Develop a Youth-Driven Mental Health Promotion Initiative

Emily Jenkins, *School of Nursing, University of British Columbia*

Objectives: Mental health challenges are one of the most significant health issues facing young people worldwide. In Canada, 15-30% of our youth population experiences a mental health issue, with many rural and remote communities overrepresented in this data. Programs have been developed to address this important public health issue, however, few have involved youth in the process- a factor which is believed to have limited the effectiveness of current approaches. This study used an Integrated Knowledge Translation (IKT) strategy to engage youth in the development of an innovative, youth-driven mental health promotion initiative in a small, rural community in North-Central British Columbia.
Methods: 10 young people were hired as youth collaborators to guide the development of this initiative. Given the rural nature of this community, innovative strategies (including the use of videoconferencing) were utilized to facilitate engagement and study progress. Each youth was provided with an iPad to use for these sessions. Youth collaborators carried out weekly tasks which included examining pertinent mental health literature, reviewing evidence regarding mental health issues within the study community, conducting an asset mapping exercise, and establishing the focus of the initiative.
Results: Through this process, the youth identified key mental-health relevant issues facing young people in their community. Underlying these challenging experiences was an absence of opportunities to foster a sense of community connectedness among young people, a powerful factor associated with mental health outcomes. The youth also reflected that, often, the resources available to young people are not publicized through youth-relevant mechanisms. The youth collaborators are currently solidifying plans for their initiative, which will utilize web-based technologies to facilitate youth engagement and will implemented in Fall 2013 with concurrent evaluation.
Conclusions: IKT offers a valuable approach for engaging communities in using various sources of knowledge to create collaborative, evidence-informed approaches to health. Involving youth in developing initiatives aimed at addressing their needs can result in the creation of novel, youth-driven approaches which may enhance utilization and effectiveness.

5060

Prevalence of Intimate Partner Violence in Mountain Villages of Gilgit Baltistan

Shazia Wali, *Institute of Public Health, College of Medicine and Health Sciences, United Arab Emirates University, Al Ain, UAE;* **Gulnowshad,** *School of Public Health, Health Sciences Center, University of Texas, Houston, USA;* **Neelum Jahan,** *Aga Khan Health Service, Gilgit Pakistan;* **Syed M Shah,** *Institute of Public Health, College of Medicine and Health Sciences, United Arab Emirates University, Al Ain, UAE*

Background and objectives: Intimate partner violence (IPV) has been shown to have serious health consequences. Women in high mountain villages of report one of highest reports of suicide rates in the region. We determine the prevalence of IPV and associated risk factors among married women in high mountain villages of Pakistan as part of a global health project “Developed Developing Countries Partnership for Non-communicable Diseases Prevention”.
Methods: We conducted a cross-sectional survey in a random sample of 1000 households from 18 villages of Ghizar district of GBL region of Pakistan in 2011. We used standard questionnaire to identify verbal and physical/verbal abuse and associated risk factors.
Results: Out of 789 married women 180 (22.8%; 95%CI 14.9, 19.9) reported some form of IPV victimization. Women evidenced significantly higher IPV prevalence if their relationship with their mother-in-law was bad (31.7%), or fair (24.1%) compared to those with having a good to excellent relationship (12.3%). Prevalence of depression was high among IPV victimized women (55.0%) compared to their non-victimized counterparts (37.3%) and this relationship was statistically significant (adjusted odds ratio (AOR) = 1.89, 95%CI 1.30, 2.77). Poor-relationship with mother-in-law remained a significant correlate of IPV (AOR = 2.71, 95%CI 1.69, 4.33) after adjustment for age, education, number of children, income, occupation, tobacco use and body mass index.
Conclusions: Intimate partner violence is a major public health problem. This information provides a foundation on which to build prevention efforts, particularly directed towards improvement of relation with mother-in-laws.

THURSDAY NOVEMBER 14, 2013	
C) Professional Practice **Room 207, Civic Centre** **Chair:** Linda Axen	**1020 – 1200**

5078

Who Are the Nurses Working in Rural And Small Town Canada?

Martha MacLeod, *School of Nursing, College of Arts, Social and Health Sciences, University of Northern British Columbia;* **Roger Pitblado,** *Department of Geography, Laurentian University;* **Irene Koren,** *School of Nursing, Laurentian University;* **Judith Kulig,** *Faculty of Health Sciences, University of Lethbridge;* **Norma Stewart,** *College of Nursing, University of Saskatchewan*

Transformations in the healthcare system, particularly in primary healthcare (PHC) are significantly impacting licensed practical nurses (LPNs), registered nurses (RNs), registered psychiatric nurses (RPNs) and nurse practitioners (NPs). This is especially the case in rural/remote communities where nurses are on the front line, facing many demands, often with sparse resources, and sometimes in communities where the population demographics are in flux.

The purpose of this paper is threefold: 1) to identify key characteristics and geographical distribution of the regulated nursing workforce in rural/remote Canada, and changes in the workforce over the last decade; 2) to identify the potential nursing workforce engaged in primary healthcare in rural/remote Canada; and, 3) to identify how policy documents have addressed these questions since 2003.

This paper reports findings of an analysis of the Canadian Institute for Health Information (CIHI) Nursing Database (NDB) administrative data on RNs and NPs, LPNs and RPNs, as well as the findings of a policy document analysis. Data on nurses working in rural/remote areas for 2003 and 2010 were examined. The characteristics and geographical distribution of Canada's regulated nurses were analyzed based on workforce numbers, demographics, employment, education, and migration.

The implications of workforce mix for rural/remote nursing HHR include: increasing proportions of LPNs and decreasing proportions of RPNs work in community health agency locations; staff mix changes in rural settings with an increase in LPNs; and the shortage of nurses providing care to rural and remote Canadians has become more severe illustrated through the differences in the proportions (%) of RNs and NPs, LPNs and RPNs working in rural Canada between 2003 and 2010. Since 2003, policy documents that have addressed rural nursing practice issues are common in specific geographic areas of Canada with the challenges regarding recruitment and retention continuing to be highlighted.

We conclude that rural/remote populations in Canada continue to experience a chronic dearth of regulated nurses. This analysis will assist in planning for staffing in rural and remote Canada.

5172

How Physicians Working in Rural Emergency Departments in Four Canadian Regions Perceive Rurality? Insights from the Trauma Care Study

Oxana Mian, *Centre for Rural and Northern Health Research/CRaNHR Laurentian University;* **Margaret Delmege,** *Centre for Rural and Northern Health Research/CRaNHR Laurentian University;* **Jill Sherman,** *Centre for Rural and Northern Health Research/CRaNHR Laurentian University*

Objective: To assess and examine agreement between classifications of communities as rural by physicians working in hospital emergency departments (EDs) and the Statistics Canada Statistical Area Classification (SAC) definition and identify factors associated with the agreement (or disagreement) between the two classifications.

Method: Data from a recent cross-sectional survey of physicians working in rural hospital EDs in British Columbia, Alberta, Ontario and Atlantic Canada (n=466), conducted by CRaNHR (2011-2012), will be used. Physicians' perceptions of their community as rural will be derived from their answers to the survey question: "Which of the following best describes the community where you practice emergency medicine?" with four available responses ("urban", "sub-urban", "rural/small town", and "remote/isolated"). Bivariate statistical analysis will be used to determine variables associated with the agreement (or disagreement) between physicians' perceptions of their community as rural ("rural/small town" and "remote/isolated") and the SAC definition of rural ("census metropolitan area and census agglomeration influenced zones"/MIZ). IBM SPSS Statistics Version 20 will be used for the data analysis.

Results: According to the survey respondents, 80% worked in rural communities, compared to only 61% according to the Statistics Canada SAC definition. A difference between the Statistics Canada and physicians' classifications varied across regions, being the smallest among physicians from Alberta (9%) and the largest among physicians from British Columbia (27%). In this presentation, we will describe how physicians' perceptions of rurality and their agreement (or disagreement) with the SAC definition were associated with community and hospital characteristics, geographical location, and physician's ED practice organization and trauma care experience.
Conclusion: The Statistics Canada definition of rural remains useful despite the well-known limitations; however, the perspectives of practicing healthcare professionals are important to complement the SAC definition of rural, particularly when studying rural health services.

5162

Professional Practice Characteristics and Satisfaction of Psychologists in Rural, Intermediate, and Urban Canada

Cindy Hardy, *Department of Psychology, College of Arts Social and Health Sciences, University of Northern British Columbia;* **Karen Dyck,** *Department of Clinical Health Psychology, Faculty of Medicine, University of Manitoba;* **Judi Malone,** *Psychologists Association of Alberta and Athabasca University*

Purpose: This paper presents findings from a survey of Canadian registered psychologists regarding professional practice characteristics and satisfaction with current location and work-life balance.
Method: An online survey of registered psychologists was administered via the website of the Canadian Psychological Association.
Results: A total of 362 registered psychologists responded to the survey, with missing data on geographic location for 32 cases (8.8%). Respondents' primary workplace location, coded using OECD (2011) definitions, was Predominately Urban 51.9%, Intermediate 15.7%, Rural Metro Adjacent 13.3%, Rural Non-metro Adjacent 8.3%, and Rural Northern 1.9%, with the latter three collapsed into Rural (n = 85, 23.5%) for analyses. In this sample, rural psychologists were younger than urban psychologists, $X2$ (4, n = 328) = 11.56, p = .02; less likely to hold a PhD and more likely to hold a Master's or PsyD (professional doctorate) degree, $X2$ (4, n = 327) = 28.59, $p < .001$, and equally likely to be trained in Canada. Urban psychologists were more likely than rural psychologists to belong to collegial organizations, $X2$ (2, n = 330) = 7.88, p = .02. Compared to urban psychologists, psychologists from rural and intermediate regions found it harder to access continuing professional development opportunities, F (2, 283) = 39.7, $p < .001$. Satisfaction with current location did not differ across location, while satisfaction with work-life balance was greater for psychologists in intermediate areas (M = 6.75 on 10 point scale) than for urban psychologists (M = 5.81). Rural psychologists' satisfaction with work-life balance (M = 6.33) did not differ statistically from urban or intermediate.
Discussion: Demographic and satisfaction findings likely reflect rural-urban differences in supply of and demand for psychologists along with age-related differences in preferences for work in rural settings. Urban psychologists' work-life balance deserves attention. Rural psychologists' tendency to not belong to collegial associations raises the question of relevance and utility of urban-based associations for rural psychologists.
Conclusions: Taken together, these findings highlight the importance of developing continuing education and other training opportunities specifically designed for rural psychologists in Canada.

5156

The Role of Nurse Practitioners in Northern and Rural Ontario

Irene Koren, *Centre for Rural and Northern Health Research and School of Nursing, Laurentian University;* **Oxana Mian,** *Centre for Rural and Northern Health Research, Laurentian University;* **Sara Lacarte,** *Centre for Rural and Northern Health Research, Laurentian University*

Objective: To describe and compare the distribution and practice profile of nurse practitioners (NPs) in rural and urban communities of northern and southern Ontario.
Method: A cross-sectional survey of NPs registered with the College of Nurses of Ontario (CNO) and employed in nursing in Ontario, was conducted in February 2012. Consultations with the Ministry of Health Nursing Secretariat, key informant interviews and a focus group with practicing NPs and NP employers were conducted to develop a questionnaire. Home addresses of NPs who consented to be contacted for research purposes were obtained from the CNO. The list included 1404 NPs with Ontario home addresses (76% of all NPs employed in Ontario in 2012).

A survey package was mailed with two follow-up reminders. Of 681 questionnaires returned (49% of mailed), 613 met the selection criteria. A descriptive and comparative analysis was performed using IBM SPSS Statistics, Version 20.
Results: About 15% of NPs were employed in northern Ontario (in our sample and in the province in 2012). A significantly higher proportion of northern NPs practiced in rural communities (32%) compared to NPs in the south (12%). An overwhelming majority of NPs in the north practiced in primary health care compared to NPs in the south (91 and 65%). NPs in the north were less likely to have a Master's degree in Nursing compared to NPs in the south (15% and 44%). Significant regional differences were also found between NPs in past experience and future career plans, clientele, and employment and practice characteristics. Overall, northern and rural NPs were more likely to state that their position allowed providing health services to maximum of their knowledge.
Conclusion: Our survey findings indicated that the role of NPs in northern Ontario significantly differs from that in the southern region. This has implications for health policy, NP education and health human resources planning.

5122

Informed Advocacy and Nursing Practice in Rural, Remote and Northern Communities

Karen MacKinnon, *School of Nursing, University of Victoria;* **Pertice Moffitt,** *Aurora Research Institute and Aurora College*

This paper will explore what we have learned about social justice, emancipatory knowing and nursing praxis from and with nurses working in rural, remote and northern Canadian communities. Chinn and Kramer (2011) describe emancipatory knowing as awareness and critical reflection that "calls forth action in ways that reduce or eliminate inequality and injustice" (p. 5). Grounded in feminist thought, these nurse scholars acknowledge the activist nature of emancipatory knowing that is "grounded in the situation of those who experience a particular injustice" (p. 75).
The paper presents a novel synthesis and analysis of our combined research about nursing practices in Western and Northern Canada. We will begin by exploring the contextual knowledge that rural and remote nurses have demonstrated and require for socially responsive nursing practice in acute care and community settings. Through prolonged engagement in these practice settings, and through critical reflection on practice stories embedded in our research, we came to understand some aspects of nurses' embodied work as informed advocacy. By comparing our previous work, we identified a framework for describing nurses' informed advocacy work which includes: 1) ensuring that people's concerns are heard (by listening with intention and responding with action), 2) contextualizing practices (by making visible or utilizing information about the contexts of people's lives to inform health care decision making), 3) safeguarding (by ensuring that people remained safe), and 4) addressing systematic health inequities (by mobilizing local resources and by providing leadership at the health system or health policy level). We will first share two stories that illustrate nurses' informed advocacy work and then link our examples to disciplinary understandings of social justice and emancipatory nursing praxis.

THURSDAY NOVEMBER 14, 2013	
Room 208, Civic Centre **D) Geriatrics and Healthy Aging** **Chair:** Juanita Bacsu/Allison Cammer	**1020 – 1200**

5058

Healthy Aging in Place: Perceptions of Rural Older Adults

Juanita Bacsu, *PHARE, SPHERU, University of Saskatchewan;* **Bonnie Jeffery,** *Faculty of Social Work, University of Regina;* **Nuelle Novik,** *Faculty of Social Work, University of Regina;* **Sylvia Abonyi,** *Community Health and Epidemiology, University of Saskatchewan;* **Shanthi Johnson,** *Faculty of Kinesiology and Health Studies, University of Regina;* **Diane Martz,** *Research Ethics Office, University of Saskatchewan;* **Sara Oosman,** *SPHERU, University of Saskatchewan*

To date, initiatives to support rural healthy aging in place have focused primarily on the views of policy makers, researchers and health professionals. With the exception of one study in the Netherlands and one study in the United States, there is a paucity of research examining perceptions of healthy aging among older adults, especially among older adults living in rural communities. Research on rural healthy aging in place has been hindered by idealistic views which have characterized rural areas as pristine pastoral landscapes, with idyllic community networks, less stressful living and close connection to the land. This study sheds light on the perspectives of healthy aging in place among rural older adults themselves. Guided by a community-based participatory research approach, this study explores the meanings, experiences and perceptions of healthy aging in place among rural older adults living in Saskatchewan, Canada. Through semi-structured interviews with 40 rural older adults, the study found that rural older adults' conceptualization of healthy aging in place consisted of factors which policy makers and health professionals would not necessarily consider. In contrast to biomedical approaches, the rural older adults situated healthy aging in place within a more holistic context of health, ranging from social interaction to maintaining an optimistic mental outlook. If policy makers and researchers are to develop more effective interventions that support rural healthy aging in place, then the importance of rural older adults' perspectives, experiences and input must be recognized.

5145

Adults Aging with Developmental Disabilities: Improving Healthcare Through Research, Policy and Practice Initiatives

Nancy Jokinen, *MSW, PhD, School of Social Work, University of Northern British Columbia*

Objectives: The objectives of this presentation are to (1) raise awareness of a growing population of adults aging with developmental disabilities and healthcare concerns, (2) report preliminary findings from a research project conducted across five healthcare authorities in British Columbia, and (3) introduce practice guidelines and an early detection dementia screening tool newly created for work with adults with developmental disabilities experiencing possible dementia.
Discussion: Adults with developmental disabilities are living longer due to better health and social care. Some are living to ages seen within the general population and are generally thought to experience similar age related changes and conditions. People with Down syndrome, however, experience signs of early aging and are at higher risk of developing dementia with advanced age. Current international research will be highlighted alongside a project in British Columbia that examined healthcare policy-practice across five regional health authorities. As a part of the research project, policy analyses and interviews or focus groups were held with individuals with developmental disabilities, family members, and healthcare and disability service personnel. Preliminary findings suggest implementation of healthcare policy varies across health authorities and a number of challenges need to be addressed to ensure appropriate, timely access to services for this vulnerable group. The presentation will also highlight dementia as it affects individuals aging with developmental disabilities, an early detection screening tool developed for family and front line staff to track changes experienced by individuals that can be used to facilitate a conversation with their healthcare professional, and dementia care practice guidelines for this population published 2013.
Conclusion: There are an increasing number of adults aging with developmental disabilities. Similar to other older-aged adults, appropriate timely healthcare is important. Recent initiatives can inform research, policy and practice that provide new direction to improve healthcare to this population.

5138

Rural Northern Nurses Self Perceived Competencies in Addressing the Spiritual Needs of the Patients with Life Limiting Conditions

Ibolya Agoston, *Northern Health Authority, iPANEL (Initiatives for a Palliative Approach in Nursing: Evidence and Leadership) MSN student*

Objective: 1) To describe the NHA nurses' level of self-perceived competence in addressing the spiritual needs of patients with life limiting illness. This level will be described by type of care provider: RNs, LPNs, and care aides and type of care setting: home care, residential care and hospital units in areas within NHA. 2) To describe to what extent the differences in self-perceived competence are explained by professional role, clinical context, and demographic factors including years of practice, education, age, birthplace and first language.

Methods: A secondary analysis of the data collected in a provincial survey by the iPANEL group was done. The first research objective will be addressed by comparing the three distributions of the self-perceived competence items across three different care provider groups (Registered Nurses (RN)s, Licensed Practical Nurses (LPNs) and Care Aides (CA)) and three settings (hospital, residential, and home care). Multivariate linear regression was used to address the second question by evaluating the extent to which variation in registered nurses' and care aides self-perceived spiritual care competence is explained by professional, educational, clinical context and demographic factors.
The results will be presented for each care provider group. Preliminary results show that the level of self-perceived competence is relatively equal amongst all three types of care providers in residential care. LPNs in hospital units have a significantly lower level of self-perceived confidence than RNs. There were no statistically significant differences explained by the years of practice or level of education or age. Only about 26% of variation in the dependent variable is explained by the combination of above mentioned factors.
Conclusion: Addressing the spiritual needs of the patients is a recognized aspect of holistic nursing care. The level of self-perceived competence is affected by the type of care setting and type of care provider but lots of variation in the response remains unexplained by the selected variables.

5152

Examining Caregiver Distress of Informal Caregivers of the Oldest Old Receiving Community Home Care Services

Shannon Freeman, *School of Public Health and Health Systems, University of Waterloo, Ontario;* **Mary Henderson-Betkus,** *Northern Health, Lead, Clinical Program Standards, Regional HCC Home and Community Care;* **John P. Hirdes,** *School of Public Health and Health Systems, University of Waterloo, Ontario*

Introduction: Enabling caregivers to continue caregiving duties can reduce demands on the health care system and make it possible for older adults to remain at home in the community. This study examined factors driving caregiver distress for informal caregivers of the oldest old (aged 80 or greater) receiving community based home care services and identified factors amenable to intervention.
Methods: Community-based home care clients were assessed with the interRAI Home Care assessment (interRAI HC) as part of normal clinical practice between 2003 and 2010 (N=829,402). The main study outcome was the presence of one or both indicators of caregiver distress: helper(s) unable to continue caring activities; primary informal helper expresses feelings of distress, anger, or depression.
Results: Caregiver distress was evident among about 16.5% of community homecare clients (N=137,115). Caregivers provided on average 17.9 hours of care per week. 30% of spousal caregivers exhibited distressed compared to 14% of children, 11% of other relatives, and 7% of neighbour caregivers respectively. 1 in 4 caregivers who lived with the care recipient expressed distress compared to less than 1 in 10 for those who did not. Care recipient age was not a driving force behind caregiver distress. Caregiver satisfaction with support from others was a strong predictor of caregiver distress. Multivariate regression analyses examined client level predictors (including functional, cognitive, psychosocial, and demographic characteristics), and caregiver characteristics, to identify factors affecting prevalence of caregiver distress. Implications: Informal caregivers are vital to ensuring quality of life and care for older adults. Evidence informed decision-making is critical to ensure more effective allocation of health services to meet person-specific needs of the oldest old. The interRAI HC is an excellent clinical tool to elucidate patterns in health needs affecting informal caregiver distress. Our findings emphasize the need for a care planning protocol to assist clinicians, on a targeted basis, to recognize clients whose informal caregiver may be at elevated risk to experience caregiver distress.

5140

Using Arts-Based Research to Encourage Meaningful Dialogue about Gender, Social Inequity, Recovery and Mental Illness among Older Northern Women

Dawn Hemingway, *School of Social Work, University of Northern BC;* **Indrani Margolin,** *School of Social Work, University of Northern BC;* **Ann Halikowski,** *community artist, Prince George;* **Colleen McAlpin,** *community member, Prince George*

This presentation will discuss the research process and findings from one site within a multi-site study that used creative and artistic processes (e.g., collage, movement, gesture) to develop research spaces that engaged women living with mental illness in exploring their experiences of recovery. While much recovery research has used qualitative approaches to include voices of people with lived experience, it has largely been professionally directed and bound by approaches, procedures and standards that limit self-representations of the experience and favour explicit over implicit experiences of the phenomenon. These limitations are problematic when the research concerns those whose lived experience is characterized by social inequities and marginalization.
Arts-based research has emerged as a potentially powerful participatory and critical form of inquiry. In this project, creative/artistic experiences, over 3 sessions, were used to explore the central research question: "What are the important moments, people, places, events, activities, and milestones in your recovery?" Dialogue about both the artistic processes and the meanings of the experiences captured in the art were integrated throughout the process.
Findings give voice to 7 older northern women with long-time involvement in the mental health system. In describing a recovery continuum from despair to hope, their creative voices express a powerful anger about stigma, discrimination, lack of access to services/supports and suffering /horrific experiences (especially in hospital). At the same time, participants speak passionately about joy, freedom, strength, happiness and determination – of finding voice, of self-advocacy and pride in their accomplishments. The powerful story told by these women, through their words and creative works, contributes to a better understanding of recovery as it intersects with gender and social inequity and points the way to needed transformation in both policy and practice.

THURSDAY NOVEMBER 14, 2013	
Room 201-203, Civic Centre **A) Communications in Healthcare Delivery** **Chair:** Tamara Checkley	**1400 – 1520**

5082

Smartphones and Wireless Technology Driven Remote Health Delivery

Saif alZahir, *Computer Science Department, UNBC, BC;* **Radwa Hammad,** *Computer Science Department, UNBC, BC*

The uses of smartphones and wireless systems get more and more diverse, sophisticated, and widespread by the day. Most smartphones can detect people physical activities and can measure basic health parameters with the help of its numerous applications. Many types of smartphones can use the values measured by their sensors to recognize any abrupt changes in human state of health and indicate the level of the seriousness of the situation, if required. In addition, some portable sensors systems are able to communicate wirelessly and provide further data about the subject. This research presents an intelligent healthcare wireless architecture that uses smartphones and wireless sensor network ensemble to monitor and report on high and medium risk patients. The paper starts with presenting a trajectory of wireless sensor technology and the progression of cell technology usage in healthcare. Then, we describe a broad range of telecommunications and multimedia technologies within a wireless care delivery architecture. An integrated interactive medical system will be provided and explain how could smartphones be used to make lives healthier? Finally, we discuss security and privacy issues related to such architecture and provide recommendations and solutions.

5061

How Information and Communication Technologies Can Influence Nursing Practice in Peripheral and Remote Areas? A Comparison of Two Cases

Erik Breton, *Public Health and Practice Changing Research, Centre de recherche du CHU de Québec;* **Julie Payne-Gagnon,** *Public Health and Practice Changing Research, Centre de recherche du CHU de Québec;* **Marie-Pierre Gagnon,** *Nursing Science, Université Laval; François Courcy, Psychology, Université de Sherbrooke;* **Jean-Paul Fortin,** *Social and Preventive Medicine, Université Laval; Guy Paré, Information Technology Management, HEC-Montréal;* **José Côté,** *Nursing Science, Université de Montréal;* **Sonia Quirion,** *Telehealth Coordination Centre, Réseau universitaire intégré de santé, Université de Sherbrooke*

Objective: To share findings about two case studies on the influence of information and communication technologies (ICT) on nursing practice in peripheral and remote regions.
Methods: In each case study, semi-structured interviews were conducted at the Health and Social Services Centre (French acronym: CSSS). Data codification was based on a conceptual map aimed to describe the vision and experience of the participants. Themes of comparison were influence of ICT on practice, recruitment and retention of nurses.
Results: Each case analyzed specific forms of ICT. The first studied a set of ICT associated with a learning organization in one CSSS in a remote rural area. The second analyzed a tele-assistance service in wound care in four CSSS in a peripheral (mixed rural-urban) area. Although differences are observed in the purpose of ICT and their area of applications, the cases share many similarities: changes in organizational cultures, transfer knowledge and mutual aid. Also, both cases come to the conclusion that ICT could be an important tool to support nursing, but that their influence on nurse recruitment and retention remains limited.
Conclusions: Research on new and innovative solutions to improve clinical practices and on their influence on the practices of healthcare professionals, notably nurses, is still limited. This multiple case study can help to unveil some of the implications of introducing ICT in remote and rural healthcare organizations and to better understand their influence on nursing practice.

5104

Challenges in Delivery of Library Services to Remote Health Facilities

Anne Allgaier, *Library Services, Northern Health;* **Tamara Checkley,** *Research and Evaluation Coordinator, Northern Health*

Objectives: This presentation will share valuable lessons learned during a recent evaluation of regional library services to remote health facilities. Northern Health Library Services provides services across an area making up approximately half of the province of British Columbia. Challenges related to providing library services to the remote areas were presumed; however, evaluation results provided the data to support strategies to overcome barriers. The importance of staff having access to literature to make timely evidence-informed decisions is supported by the organization's commitment to provide exceptional service guidance guided by evidence. We will be sharing our evaluation methods and some results which will be of interest to the broad conference audience. Evaluation questions were based on an Australian library survey. In the USA major library evaluations were done in 1993 and 2012 but included four Canadian sites. Results of our survey revealed many similarities to those other surveys, perhaps hinting that remote facilities use similar resources in similar purposes and face similar barriers as well.
Discussion: The evaluation was conducted in March 2013 with 291 responses received. The evaluation was distributed to all Northern Health employees with clear indication that results would be used to guide future developments in library services. While Northern Health employs approximately 7000 staff, not all staff have ready access to computers. As well, some sites were provided the option of completing paper responses. All professional groups were well represented in the responses including care providers, administrative staff, physicians and students. Most respondents were satisfied with on-line library resources; most respondents reported that using library services could save them time; however, many staff members were unaware of all library services.
Conclusion: This presentation represents part of a strategy to address the reported lack of awareness of library services. Further ongoing evaluation will be undertaken to determine the effectiveness of planned strategies for quality improvement of services.

5073

Social Media, Recruitment and Patient Education in Northern Ontario

Sidney Shapiro, *Department of Northern and Rural Health, Laurentian University;* **Ryan Giroux,** *Department of Political Science, Laurentian University*

The use of social media in a rural setting is particularly beneficial to educate and reach the technologically connected segment of society. Considering Canada has a very high proportion of internet connectivity, and many people spend a great deal of time on social media sites, it is the ideal starting place for patient education and recruitment. With the ability to selectively target age and many other demographic and social factors, public health campaigns can be particularly effective in rural areas at a very low cost.

With costs being a fraction of traditional advertising or communication options, online advertising on social media, such as Facebook, provides an ideal platform to reach large numbers of people in a geographically dispersed rural area. In the example presented, social media was used to propagate a variety of different social and static advertisements.
These ads were focused on spreading awareness for a smoking cessation campaign. While the various images (ads) performed at varying levels of effectiveness, the overall picture is one where a message is able to reach approximately half the population in a relatively small area (approximately 150,000) with a surprising rate of response. Examples of the work undertaken as part of the development of the campaign will be discussed, as well as an analysis of the various methods which could be employed in a rural or remote setting. Using this example as a template, numerous recruitment and education strategies will be theorized.
Using social media is an effective method for raising public awareness and providing a starting point for patient education. It can be utilized in a number of different ways, and allows of strategies which target specific subgroups of the population. In contrast to other tradition forms of advertising and public communication, social media offers health care providers unparalled new access to health education, services, and awareness. Analyzing the various campaign configurations and options will highlight new ways to use this technology for its full social potential.

THURSDAY, NOVEMBER 14, 2013	
Room 204-206, Civic Centre **B) Children and Youth 2** **Chair:** Joanna Paterson	**1400 – 1520**

5056

Young Adult Knowledge of Preconception Health

Nancy Lightfoot, *Schools of Rural and Northern Health and Social Work, Laurentian University;* **Sherry Price,** *School of Social Work, Laurentian University;* **Megan Dumais,** *Health Promotion, Sudbury and District Health Unit;* **Colin Berriault,** *School of Rural and Northern Health, Laurentian University;* **Sandra Djivre,** *Health Promotion, Sudbury and District Health Unit*

Objectives: A cross sectional study was utilized to evaluate preconception knowledge and behaviours of male and female undergraduate students at a northeastern Ontario university.
Methods: A convenience sample of 315 students, aged 20 to 24, were asked to complete a questionnaire that asked about factors that influence preconception health and current behaviours which can affect pregnancy outcome. Logistic regression modelling was used to determine factors associated with an incorrect answer for whether women of childbearing age should take 0.4 mg of folic acid, daily. Factors considered in the model included: gender; smoking, drug, and alcohol use in the last year; relationship status (single or couple), ethnic origin (Aboriginal, Francophone, and other), and program of study (life sciences versus other).
Results: Of the 315 students that completed the questionnaire, 16.4% were current smokers, 50.8% were aware that females of childbearing age should take 0.4 mg of folic acid daily, 47.3% knew that having five or more alcoholic drinks on one occasion was excessive, 86.4% knew that nicotine, alcohol, and drugs affect the fertility of both partners, 30.0% were aware that marijuana can damage sperm, and 66.4% said they always utilize birth control methods to prevent pregnancy. Factors associated with an incorrect answer for the need to take 0.4 mg folic acid in women of childbearing years were: studying in a non-life science program (OR=1.91, 95 % CI: 1.15-3.16, p=0.012), alcohol consumption in the last year (OR=1.87, 95% CI: 0.99-3.55, p=0.055), and males were more likely to have an incorrect answer (OR = 1.66, 95% CI: 1.00-2.75, p=0.051).
Conclusions: Preconception community-based interventions that include information about planning pregnancies, effects of smoking and drinking and associated cessation benefits, and the value of 0.4 mg of folic acid in multi-vitamins are needed in this population. Individuals in their child-bearing years really need to be aware of the need to plan pregnancies to ensure optimal health prior to conception and in early pregnancy.

5163

Day Surgery for Early Childhood Caries in Canada, 2010-2011 to 2011-2012

Anne McFarlane, *Canadian Institute for Health Information (CIHI);* **Brandon Wagar,** *Canadian Institute for Health Information (CIHI);* **Adam Sherk,** *CIHI;* **Maria Hewitt,** *CIHI;* **Walter Feeney,** *CIHI;* **Jin Huang,** *Canadian Institute for Health Information (CIHI), BC*

To profile the extent of hospital-based day surgery for Early Childhood Caries (ECC) in Canada, day surgery abstracts for ECC were extracted from CIHI's Discharge Abstract Database, Hospital Morbidity Database, and National Ambulatory Care Reporting System, and pooled for fiscal years 2010–2011 and 2011–2012. Population counts for rates and assignment of sociodemographic variables was done using Statistics Canada Census data. Costs were derived using CIHI's Canadian MIS Database.

Descriptive analyses were used to profile rates of surgery, identify populations at higher risk, derive costs, and describe travel times associated with receiving such care. In an average year, one child age 1 to <5 undergoes ECC-related day surgery for every hundred Canadian children this age. Day surgery for ECC constitutes 25% of all day surgery for children age 1 to <5. It is the leading cause of day surgery for children this age. Day surgery rates were: 8.6 times higher for children from high- as compared to low-Aboriginal neighbourhoods; 3.9 times higher for children from the least as compared to the most affluent neighbourhoods; and 3.1 times higher for children from rural as compared to urban neighbourhoods.

The public cost associated with day surgery for ECC is considerable, $22 million per year for the hospitalization alone. Among children receiving day surgery for ECC, 22.1% traveled two or more hours for care. This report is limited to hospital-based treatment for ECC. In terms of estimating the prevalence of interventions for ECC, the report is identifying the "tip of the iceberg".

The health burden and financial cost associated with ECC-related day surgery is considerable, and should theoretically be entirely avoidable. The magnitude of ECC requiring day surgery in Canada as described in this report provides further impetus to act and prevent pain and suffering among young children, improve quality of life and realize opportunities for cost savings and improved health system efficiency.

5155

High-Risk Environments and Agricultural Injury in Children and Youth

Yvonne DeWit, *PHARE, Department of Public Health Sciences, Faculty of Health Sciences, Queens University*

Objectives: Agricultural injuries in children and youth are an important public health concern yet there is a dearth of disseminated information about this issue. This research has two objectives: to describe the incidence and characteristics of agricultural injuries in children and youth and to investigate associations between exposure to high-risk farm environments and activities with the occurrence of pediatric agricultural injuries. To address these goals, two complementary investigations will be conducted: the first will be a descriptive analysis and the second, an etiological investigation.

Methods: The descriptive analysis will use surveillance data of hospitalized and fatal agricultural injuries in the provinces of Ontario and Saskatchewan. Injuries in children under the age of 20 will be described according to: external cause of injury, activities leading to injury, exposures to high risk environments, type and site of injury, demographic and temporal factors. Counts, frequencies, rates, cross-tabulations, and measures of central tendency will be calculated as appropriate. The etiological investigation will use previously collected data from an on-going study of active farms in rural Saskatchewan. Data were collected using a questionnaire filled out by key adult informant on farm-related injuries, individual and farm characteristics, and other exposures. Children under the age of 20 will be identified from the data. Exposures of interest include the number of hours the child spends present on the farm worksite, operating and maintaining tractors, performing tasks involving animals, and using all-terrain vehicles. The outcome will be parent or owner operator reports of agricultural injury. To investigate the hypothesized associations, Poisson regression models will be built considering potential covariates using traditional model-building and change of estimate approaches.

Expected Outcomes: This research is ongoing, with access to the data being granted in August and September of 2013.

Together, findings from these complementary investigations will provide new evidence that can assist in the prevention of farm injury in children and youth. Ultimately, findings from this research will assist in the improvement of health in rural populations through reductions in the burden of agricultural injury.

5178

Connecting the Dots: From Parent Voices to Developmental Impacts

Mary Stewart, *M.A., University of British Columbia;* **Silvia Vilches,** *PhD. Simon Fraser University;* **Mari Pighini,** *PhD., University of British Columbia*

Rural families face unique challenges in supporting children with developmental delay or disability. Family centred practices (FCP) has been shown to be highly effective in working with vulnerable families. This presentation shows how parents' experiences of raising children with developmental delays or disabilities demonstrates how family centred practice can be a support in rural communities.

Data is drawn from four studies conducted in BC as part of the Including All Children (IAC) project: (1) case studies with rural and urban parents, using open-ended and face to face interviews; (2) focus groups with parents living in rural and urban communities; (3) follow-up calendar and telephone interviews with parents living in rural and urban communities; and (4) surveys of service providers. A synthesis of the results provides examples and illustrations of the experiences with early intervention, supported child development, and health care.

Parents experienced four key challenges: (a) communication, (b) community connections, (c) geography / transportation, and (d) choice of services. While quantitative analysis focuses on significant predictors of coping and well-being, parents' stories illustrate the serious developmental and family impacts of being unable to overcome challenges. In some cases, the developmental impacts permanently negatively affected the child's future health and well-being. However, parents also talk about the strengths of drawing on supports from key individuals in rural community-based agencies, as well as neighbours and family. Parents triaged support for themselves and carefully prioritized services to optimize benefits for the child and whole family together.

The results reveal opportunities for funding, health care systems and community-based organizations to better respond to the needs of rural parents. Families in rural communities face unique challenges when raising a child with a disability or developmental delay. The voice of parents who have a child with a disability or developmental delay is often left out of the consultation process, yet parents say that working relationships with local service providers are pivotal to positive experiences of support with their child. Parents draw on the strengths of their rural community experiences and lifestyle, proving the logic of family-centred practice for rural communities.

THURSDAY, NOVEMBER 14, 2013	
C) Collaborative Teams and Patnerships **Room 207, Civi Centre** **Chair:** Rachael Wells	**1400 – 1520**

5136

Quality Improvement Science Drives Primary Care Team Coaching in the North

Denys Smith, *Primary Health Care, Northern Health;* **Charlotte Wenninger,** *Primary Health Care, Northern Health;* **Dori Pears,** *Medical Administration, Northern Health;* **Gayle Anton,** *Primary Health Care, Northern Health*

Our objective is to demonstrate how the Practice Coaching team approach to patient care aligns with Primary Health Care objectives in Northern Health Primary Health Care Clinics. Practice Coaching at the office practice level provides the foundational support requisite to achieving quality improvement goals by engaging physicians, nurse practitioners and clinic office staff in practice improvement activities. Current research and empirical evidence indicate that physicians and clinic office staff who have coaching support are more likely to be successful in adapting Quality Improvement knowledge, skills and abilities.

Practice coaching helps physicians and their teams develop insights, skills and capabilities to assess and improve their current health care experiences. Practice Coaches trained in peer reviewed practice coaching quality improvement methodologies are in place across Northern Health. The Practice Coaches support physicians and their staff as they work to improve patient care by increasing office efficiency and improving clinical management. Practice Coaches from various communities will present the front line perspective of practice coaching in Northern Health.

Practice coaching is a fluid, versatile team based approach to patient care. Selected case studies will demonstrate how the approach meets Primary Health Care objectives and accommodates differences in the way physicians and clinic office staff engage in quality improvement in Northern Health Primary Health Care Clinics.

5066

Partnering for Primary Health Care Integration in Northern B.C. Communities: How Will We Know When We Get There?

Neil Hanlon, *Geography Program, University of Northern British Columbia;* **Trish Reay,** *School of Business, University of Alberta;* **Martha MacLeod,** *School of Nursing, University of Northern British Colbmbia*

Community groups, health care professionals and health authority personnel have embarked on a series of partnerships to enable greater primary health care integration in several communities throughout northern British Columbia. The Partnering for Change research initiative is a four year CIHR-funded project that brings together researchers and health sector decision makers to understand how networks of partners are being engaged in these communities to transform primary health care at the local and regional levels.

The project has gathered and analyzed interview, observation, planning and evaluation data over a two year time period and documented the early stages of partnership building, network development and collective visioning for primary health care transformation. It is critical to begin thinking now about whether, and in what ways, these initial efforts at network building are making a difference in terms of how primary health care is actually delivered.

This presentation offers insights about how far community and regional partners have come in moving their visions and ideas into practice. We will conclude with lessons learned thus far about undertaking primary healthcare transformation within rural and northern communities.

5107

Embracing Complexity and Transformation: Building Successful Collaborations in Rural and Remote Settings for the Purpose of Cancer Prevention

Kerensa Medhurst, *Canadian Cancer Society;* **Sherri Tillotson,** *Quality and Innovation, Northern Health;* **Sonia Lamont,** *Prevention Programs, BC Cancer Agency*

Addressing cancer prevention in northern British Columbia occurs within a larger context of dispersed rural and remote communities. The drivers of obesity, nutrition, physical activity, and smoking rates are recognized to be multiple, diverse and complex including both personal behaviours and the physical, economic, socio-cultural and political environments that shape them. These realities were the impetus for the Canadian Cancer Society (CCS), BC Cancer Agency (BCCA) and Northern Health (NH) to begin exploring opportunities for harmonization of cancer prevention services.

This research, funded by the Canadian Cancer Society's Research Institute (CCSRI), also includes two pilot projects to help evolve and model this collaboration. The harmonization project is ongoing until 2016 and is exploring opportunities for harmonization of the cancer prevention services provided by the three organizations, while remaining respectful of their individual mandates, priorities, resources and methods. Collaborative processes in inter-organizational or multi-organizational systems are characterized by equitable relationships, consensus building, co-ordination of activities across professional and institutional boundaries, and adaptation of inter-related efforts to achieve a shared vision and goals.

Leadership in this context requires an adept understanding of systems thinking, a flexible and adaptive leadership style, and an ability to create a culture of mutual learning and transformation.

The objective of the harmonization research project is to identify the key elements needed to develop and sustain collaborative working relationships with communities, NGOs, local government associations, other health authorities and other potential partners. As a process, this harmonization project is providing an opportunity to document the interactions between capacities, skills, and the mobilization of individual efforts towards an action oriented model of leading by 'being the change'. The early findings of these themes will be discussed.

5168

Atrial Fibrillation in Rural and Northern Canada: Building a Collaborative Research Team

Davina Banner, *School of Nursing, University of Northern British Columbia;* **Kathryn King-Shier,** *Faculty of Nursing, University of Calgary;* **Fred Janke,** *Faculty of Medicine and Dentistry, University of Alberta;* **Alex Clark,** *Faculty of Nursing, University of Alberta;* **Haidar Hadi,** *Northern Health;* **Martha MacLeod,** *School of Nursing, University of Northern British Columbia;* **John Pawlovich,** *Carrier Sekani Family Services & Northern Health*

Objectives: Atrial fibrillation (AF) is a major health problem in Canada – it is the most common sustained irregular heartbeat and is associated with very high increases in death and disability, including a 500% increase in stroke risk. AF is rising at an unprecedented rate due to the compounding effects of three of our largest health challenges: the aging population, chronic disease and obesity. As people in rural settings tend to be older, AF will especially impact rural communities and constitutes a 'growing epidemic' that creates significant burden for patients and health systems. Research is urgently needed to develop timely and responsive evidence to inform health service delivery and improve the health outcomes of patients with AF in rural and northern Canada.

In this presentation, we will discuss the consultative and team building processes that underpinned the development of a collaborative AF research team.

Discussion: There are few research studies that have explored AF within the context of rural and northern Canada. To respond to this gap, we developed a collaborative research team comprising established and establishing researchers from leading Canadian universities, healthcare providers, decision-makers (including those from regional and provincial health authorities), and knowledge users (such as public agencies, health networks and patient and community groups) from Alberta, British Columbia and Ontario. This presentation will highlight the processes of developing an interprovincial collaborative research team and will report on the stakeholder consultations and planning meetings that were undertaken to identify team membership, decipher clinical priorities, and start up the initial research studies. The key opportunities and challenges with collaborative teams will be discussed, as well as practical tips to maintain team momentum and effective communication.

Conclusions: Developing collaborative research teams provides the opportunity to develop research that responds to the health needs of rural and northern populations, optimizes the delivery of health care services, improves health outcomes, and maximizes knowledge translation. This presentation will share our experiences of team building and will reflect on some of the opportunities and challenges that have emerged. This presentation will be of interest to both researchers and knowledge users engaged in health research, as well as those in clinical practice interested in developing a research program.

THURSDAY, NOVEMBER 14, 2013	
D) Access to Specialty Services in Rural Areas **Room 208, Civic Centre** **Chair:** Tanis Hampe	**1400 – 1520**

5055

Increasing Rural and Rural Minorities Participation in Breast Cancer Research Studies

Pearl McElfish, *MBA, MS, University of Arkansas for Medical Sciences- Northwest, Fayetteville, AR;* **Elizabeth Childers,** *PhD, MPH, University of Arkansas for Medical Sciences- Northwest, Fayetteville, AR;* **Martha M. Phillips,** *PhD, Department of Epidemiology, Fay W. Boozman College of Public Health, University of Arkansas for Medical Sciences, Little Rock, AR;* **Melanie Goodell,** *MPH, Department of Epidemiology, Fay W. Boozman College of Public Health, University of Arkansas for Medical Sciences, Little Rock, AR;* **Kristina Bondurant,** *PhD., MPH, Department of Epidemiology, Fay W. Boozman College of Public Health, University of Arkansas for Medical Sciences, Little Rock, AR;* **V. Suzanne Klimberg,** *MD, Department of Surgery, Division of Breast Oncology, College of Medicine, University of Arkansas for Medical Sciences, Little Rock, AR;*

Ronda Henry-Tillman, *MD, Department of Surgery, Division of Breast Oncology, College of Medicine, University of Arkansas for Medical Sciences, Little Rock, AR;* **Susan Kadlubar,** *PhD, Division of Medical Genetics, College of Medicine, University of Arkansas for Medical Sciences, Little Rock, AR*

Objective: Rural and rural minority women are severely underrepresented in cancer research. We hypothesized that providing access to a research study to medically underserved women who were receiving their breast cancer screening using a mobile mammography unit would increase the representation of these under-represented, hard-to-reach populations in the research study.
Methods: 22,429 women were recruited from 2007 through 2012 as part of the Spit for the Cure Study. Spit for the Cure recruiters collaborated with a mobile mammography unit, the UAMS Mammovan, to implement a novel method for reaching and recruiting underrepresented rural and minority populations into this research study.
Results: The Mammovan recruitment allowed for a more representative study cohort. Most participants recruited through the Mammovan were recruited in rural areas. Women recruited through the Mammovan on average were older and less educated than those recruited through other events. In addition, the Mammovan was more successful in recruiting minority participants.
Conclusion: The recruitment of participants in collaboration with the Mammovan greatly aided the recruitment of rural residents, minorities, as well as women who were less educated and older, thus increasing the representativeness of our sample. These strategies will facilitate the representation of this historically underserved and understudied rural population in future research studies.

5146

Perinatal Care in Northern Rural Communities: How the Power of a Single Journey Can Inspire System Transformation

Raquel Miles, *Primary Health Care Lead Community Programs Integration, Northern Health;* **Marna deSousa,** *Care Process Coach, Northern Health;* **April Hughes,** *Health Services Administrator, Northern Health*

Every day in Northern British Columbia, pregnant women progress along on individual and very personal perinatal journeys, accessing a myriad of perinatal services. Through simple observation, it can be determined that accessibility and availability of services can vary depending on factors such as the size and location of the community, the number and scope of Primary Care team members and the type and capabilities of the facility in the community. These factors, coupled with Social Determinants of Health and each woman's personal needs and desires, are the steps along the path of perinatal care. With system transformation and team-based care being primary foci for Northern Health, the door of opportunity for change, improvement, transformation and true integration has opened wide in three prototyping communities. All processes, functions and roles are being explored, deconstructed, mapped and realigned in an effort to build a new system that offers true integrated and coordinated team-based care, ultimately achieving the Triple Aim Gold Standard – improved health outcomes, improved patient and provider satisfaction and reduced costs.
The qualitative stories of women's individual, anonymous journeys have provided a vehicle to manoeuver through the perinatal processes in an effort to identify gaps in the processes that when reframed, become the impetus for improvement. One individual case study suggested by a local team, identified the need to dig deeper and, through improvement and process reconstruction, create and support the best possible journey for every woman. The case study established the starting point to begin processing mapping the current state of perinatal care.
As the prototyping continues, each process is continually examined with three 'flows' in mind – patient flow, provider flow and information/document flow. It is in understanding the current state and the factors that send a woman's care pathway below current state, that future state will be determined, built and achieved.

5144

Northern Rapid Access to Consultative Expertise (RACE) Line - Then and Now

Tammy Klassen-Ross, *Northern Medical Program, University of Northern British Columbia;*

Daniel Horvat, *Northern Medical Program, University of British Columbia;* **Dan Winwood,** *Northern Medical Program, University of British Columbia*

Both physicians and specialists alike have noted, that time and money could be saved if a family physician could call a specialists and request non-emergent information about patient care. In the past, if a family physician had a question regarding patient care they may request a specialist consult for the patient, and often times these consults would take unnecessary time not only for the specialist but for the patient as well. A way to address this issue was to develop a phone line which would connect physicians to specialist to answer specific non-emergent patient care questions. A telephone-based Rapid Access to Consultative Expertise (RACE) service for Northern BC was launched July 2012. Northern RACE provided access to non-emergent, cardiology related, quires by family physicians from across the north. Cardiologists and family physicians, in the North, developed the original conception of the line and it was based on the successful RACE program operating in Southern BC. The uptake of this phone service was extremely low in the North, and the line showed limited usage. Through an extensive evaluation it was found that the utilization of connecting family physicians to cardiologists was cumbersome and time consuming. Through the information garnered from the evaluation, the Northern RACE line has been restructured. The new and improved Northern RACE line was launched in July, 2013 and initial data for the line usage has been encouraging.

5071

Patterns of Radiation Oncology Follow-up in Canada

Robert Olson, *Department of Radiation Oncology, University of British Columbia;* **Allison Ye,** *Department of Radiation Oncology, University of British Columbia;* **Winson Cheung,** *Department of Medical Oncology, University of British Columbia;* **Dan Horvat,** *Department of Family Practice, University of British Columbia;* **Karen Goddard,** *Department of Radiation Oncology, University of British Columbia*

Objectives: With advancements in cancer care, improved outcomes and increasing survivor populations, cancer survivorship is an important area of research. This project seeks to determine the current status of follow-up care in oncology.

Methods: A 35-question electronic survey was sent to physician members of the Canadian Association of Radiation Oncology. Based on scope of practice, respondents were presented with brief clinical scenarios pertaining to various survivor populations. A series of questions were posed to determine routine follow-up practices.

Results: In total, 111 radiation oncologists (RO) responded (44% response rate); 29% were female, 43% were in practice less than 10 years, and most of Canada was well represented. Most worked in centers staffed by more than 10 oncologists (69%), and saw more than 200 new patient consults per year (78%). 10% would not follow patients routinely, mainly in cases involving breast cancer survivors. 73% of such patients would be followed by primary care providers (PCP) whereas most ROs would follow central nervous system, gastrointestinal, head and neck, gynecologic patients and genitourinary patients. Lack of resources and a belief that follow-up by PCPs is equally effective were the top reasons for not following patients. Treatment toxicity and possibility of salvage or palliative treatment were the two most common reasons for routine follow-up by ROs. The majority (55%) of ROs follow patients for < 5 years, with 36% following for 5-10 years, and a minority (9%) following for longer than 10 years. 54% would not change the frequency of their follow-up, but 39% would decrease and only 7% would increase their follow-up. Workload and lack of resources were major barriers to follow-up, but in addition, many felt that follow-up by FPs or Advanced Practice Nurses could be equally effective. Some felt this would require additional training and more guidelines to make this effective.

Conclusions: The majority of respondents stated they would follow the patients presented in the clinical scenarios, especially when salvage treatment is possible. A proportion would decrease their follow-up frequency because of workload burden, resource limitations and a belief that there can or should be increased involvement from FPs and other allied health care providers.

THURSDAY, NOVEMBER 14, 2013	
E) First Nations Health Authority – Continuing the Dialogue **Room 102, Civic Centre** **Chair:** Rheanna Robinson	**1400 – 1520**

On October 1st 2013, the First Nations Health Authority (FNHA) made history in Canada with the official transfer of all programs and services from Health Canada's First Nations Inuit Health branch to the FNHA. The FNHA has now assumed responsibility for all health services delivered to status First Nations individuals in British Columbia. The FNHA's vision is to support "Healthy, Self-Determining and Vibrant BC First Nations Children, Families and Communities" and will achieve this through adherence to the 7 Directives put forward by First Nations communities in B.C. with an unwavering commitment to community, collaboration, and quality care.

This Session continues the 1300 to 1345 panel presentation, sharing the story of the journey of the FNHA with powerful dialogue about who we are, how we got here, and where we are going. It is through conversation and knowledge sharing with valued experts and partners that we will collaboratively move forward and improve the health of our communities.

THURSDAY, NOVEMBER 14, 2013	
A) Rural Programs **Room 201-203, Civic Centre** **Chair:** Tammy Hoefer	**1530 – 1650**

5088

Collaborating for Change: Making Project Portfolio Management Real in Northern Health and UNBC

Wing Yan (Annabelle) Wong, *Research Associate, School of Business, University of Northern British Columbia;* **Debra Woods,** *Regional Manager, Strategic Initiatives and Project Support, Northern Health;* **Steven Cronshaw,** *Professor and Chair, School of Business, University of Northern British Columbia;* **Bonnie Urquhart,** *Director, Strategic Initiatives and Project Support, Northern Health*

Study took place at UNBC in Prince George and multiple Northern Health sites across Northern BC.
Background: The need for effective management of multiple projects gives rise to project portfolio management (PPM). Effective management of healthcare projects is important to the well-being of the public. It is valuable to understand the current state of Northern Health (NH) in performing PPM. Considering education is a key element of the best practices in PPM in the literature, it is also important to explore the current state of UNBC in supporting PPM practice and training.
Objective: This study aims to examine the current state of PPM practices within NH and PPM educational opportunities at UNBC. The findings will be used to inform implementation of a PPM framework within NH and determine feasibility of a potential PPM collaboration between UNBC and NH.
Methods: Organizational diagnosis is a popular means in research and practice to identify organization conditions. Between May and June 2013, 69 NH and UNBC employees were invited to participate in 36 individual interviews and 6 focus groups to share their perspectives on the current PPM practices and training opportunities.
Participants from within NH represented a cross-section of individuals who have participated or lead projects within NH. Qualitative analysis was conducted to identify aggregated themes emerging from the interviews and focus groups.
Results & Conclusions: The results provided a clear picture of the current state of both organizations in four aspects: facilitating conditions, constraining factors, blocking factors and areas in which employees want to see improvement. Key themes such as effective communication, well-established accountabilities, clearly defined priorities, training and support were identified as areas that need improvement in the two organizations.

The results successfully validated the theoretical constructs of best practices in PPM, and provided the basis for a long-term collaborative PPM effort whereby PPM knowledge is translated and expertise is transferred between the two organizations.

5059

Once Upon a Prenatal Registry Program

Vanessa Salmons, *Early Childhood Development Lead, Northern Health;* **Sharon Davalovsky,** *Regional Manager, Preventive Public Health, Northern Health*

Background: The NH Prenatal Registry Program (PRP) is a collaborative healthcare effort between primary care providers and public health nursing, aimed at moving public health efforts upstream to improve maternal, child and family health. The PRP is an innovative practice to implement the services outlined in the Provincial Healthy Start Initiative through primary care efforts to connect public health with prenatal women and families early in pregnancy. Public Health Nurses (PHNs) aim to connect early with all pregnant women, especially those living in conditions of poverty, and those with depression and/or tobacco/substance use. An evaluation was completed after the program had been implemented for one year in six sites. The purpose of the evaluation was to hear participants' stories of their experiences with the program and its ability to meet their needs. The evaluation project facilitated a unique collaborative process between practice and education. NH saw the opportunity for collaboration with graduate and undergraduate students to complete the qualitative evaluation components of the broader evaluation project.
Methods: The program evaluation process involved many stages of Knowledge Translation (KT) through a multi-pronged approach:

- Examining quantitative outcome measures
- Identifying themes from qualitative feedback from PRP clients and healthcare providers (via surveys and focus groups) through student project initiative
- Determining future strategies & recommendations
- The Project Matchmaker Program through the Innovation & Development Commons (NH/UNBC) facilitated connecting the PRP evaluation project through Health Science students at UNBC. The opportunity also presented to engage a University of Victoria Masters of Public Health student.

Results/Findings: The PRP evaluation project provided evidence to inform decision-makers for program improvement. Four central themes were generated from the findings: communication & collaboration, program promotion, client contact and information sharing. Discussion/Implications: Evaluation findings informed recommendations based on the four themes which will support program improvements and the expansion of the PRP throughout the Northern Health Region. A multidisciplinary Strategy Network will prioritize and plan the implementation of the recommendations. This will ultimately support pregnant women and their families to ensure a healthy pregnancy and birth.

5057

Satisfaction with a Northern Satellite Paediatric Cardiology Clinic

Nancy Lightfoot, *Schools of Rural and Northern Health and Social Work, Laurentian University;* **Gil Gross,** *Division of Cardiology The Hospital for Sick Children;* **Jennifer Russell,** *Division of Cardiology, The Hospital for Sick Children;* **Colin Berriault,** *School of Rural and Northern Health, Laurentian University;* **Nicole Barbosa,** *Division of Cardiology, The Hospital for Sick Children;* **Diane Belanger-Gardner,** *Family and Child Program, Health Sciences North*

This study evaluates satisfaction with the satellite clinic and quality of life.
Objectives: Coping with a child with congenital heart disease is difficult enough without the added challenge of accessing care at a distance. Initially, families who reside in northeastern Ontario are required to travel to The Hospital for Sick Children in Toronto for diagnosis and follow-up care.
One satellite paediatric cardiology clinic (SPCC) was established at Health Sciences North in Sudbury, where, one of two, paediatric cardiologists travels from Toronto to Sudbury to conduct two-day clinics, three or four times, annually.
Methods: A mixed methods study was undertaken at the Sudbury SPCC, and included a cross sectional questionnaire completed at the clinic and a case study qualitative interview.

Results: Qualitative results revealed that families that experience a child with CHD need to be aware of the challenges and request assistance, when needed. The convenience of attending the Sudbury clinic, versus travelling to Toronto, was emphasized. In relation to the Northern Health Travel Grant, there were challenges with paperwork and in obtaining help from office staff, and it was suggested that the claim form should enable claimants to explain their specific situations. 85 families completed the questionnaire, of which 43.5% lived in Sudbury. 56.5% of families had to take time off from work to bring their child to the clinic. 90.1 % indicated the clinic cardiologist explained information to them well or very well. 28.2% revealed that they experienced a somewhat to very intense emotional reaction to being at the clinic. Although, 41.2% found the duration of the clinic visit long or very long, 69.4% reported that they were very satisfied with the clinic visit, versus 27.1% who were moderately or somewhat satisfied, or unsure. Those very satisfied had significantly higher mean Pediatric Quality of Life Enjoyment and Satisfaction (PQ-LES-Q) scores than others ($p<0.05$). For 47 families that resided outside of Sudbury, 19 (40.4%) found travel to the clinic somewhat to very inconvenient.
Conclusions: Despite good levels of clinic satisfaction and convenience, some outside Sudbury found travel challenging. Additionally, improvements are needed to better respond to questions about the travel grant and provide individual explanations.

THURSDAY, NOVEMBER 14, 2013	
B) Patient Journeys **Room 204-206, Civic Centre** **Chair:** Rachael Wells	**1530 – 1650**

5165

Managing Atrial Fibrillation in Rural and Northern Alberta and British Columbia: A Qualitative Study

Davina Banner, *School of Nursing, University of Northern British Columbia;* **Kathryn King-Shier,** *Faculty of Nursing, University of Calgary;* **Fred Janke,** ***Faculty of Medicine and Dentistry, University of Alberta;*** **Alex Clark,** *Faculty of Nursing, University of Alberta;* **Martha MacLeod,** *School of Nursing, University of Northern British Columbia;* **Haidar Hadi,** *Northern Health;* **John Pawlovich,** *Northern Health*

Objectives: AF is a 'growing epidemic' that profoundly affects morbidity and mortality. AF is rising at an unprecedented rate due to the compounding effects of three of our largest health challenges: the aging population, chronic disease and obesity. The burden of this growth on urban parts of Canada will be great; however, effects on rural Canada will be profound due to the rapidly aging population in Canada's rural communities, increased incidence of chronic disease, poorest health outcomes, and more limited capacity of rural health systems. Few studies have examined AF within the rural context.
To address this gap, we undertook a qualitative study to explore the management of AF in rural and northern Alberta and British Columbia. In this presentation, we will report on the findings of this study and emerging areas for healthcare innovation and future research.
Methods: In-depth semi-structured interviews with healthcare providers and stakeholders from northern and rural Alberta and British Columbia were undertaken to explore the experiences of managing AF and enacting clinical guidelines. Data were analyzed and compared to identify key themes.
Results: Analysis of the data revealed that healthcare providers and stakeholders identified AF as a manageable condition, but that challenges exist due to the limited access to specialist services and monitoring, high workloads, poor patient literacy, and a lack of integration between the healthcare agencies managing AF. Despite many challenges, examples of innovative models of healthcare delivery to improve patient outcomes were uncovered.
Conclusion: This study provides a comprehensive examination of the challenges faced by rural healthcare providers managing AF and enacting clinical guidelines. The findings of the study support the need to examine the broader implications of AF for rural communities, including identifying processes for identifying vulnerable populations, supporting self-care, and developing practice models that optimize patient management and outcomes.

5167

The Healthcare Journeys of Rural Older Adults with Atrial Fibrillation

Kathy L. Rush, *School of Nursing, FHSD, University of British Columbia, Okanagan Campus;* **Nelly Oelke,** *School of Nursing, FHSD, University of British Columbia, Okanagan Campus;* **Colin Reid,** *Health and Exercise Science, FHSD, University of British Columbia - Okanagan Campus;* **Francois Louw,** *Chisel Peak Medical Centre, Invermere;* **Carol Laberge,** *Cardiac Services, Kelowna General Hospital;* **Mary Kjorven,** *Specialized Geriatrics, Interior Health;* **Frank Halperin,** *Cardiology Associates, Kelowna*

Objectives: Older adults with atrial fibrillation (AF) are one of Canada's fastest growing cohorts, with rates increasing per decade and expected to more than double in the next two decades. AF poses risks to older adults' function, quality of life, and psychosocial wellbeing and raises their stroke index. Their rising hospital and ED utilization have strained the current systems capacity and resources and put older adults at risk. These risks may be exacerbated in rural areas where populations are older and disparities exist in treatment and services for AF. Achieving integration that links users, healthcare providers, and services, is critical to managing the care complexities of these high-risk, high resource users especially those living in rural areas. Little is known about current delivery gaps and how to achieve integration for older adults with AF.

The study's two-fold purpose was to i) Describe strengths and gaps in current service delivery for rural older adults with AF from the perspective of patients, service providers, and decision-makers; ii) Understand the needs, values, preferences, valued outcomes and feasibility of integrated care for this sub-population from multiple stakeholder perspectives.

Methods: The larger mixed methods study involves a combination of patient journeys, focus groups and self-report measures with older adults with AF and focus groups with providers and decision-makers. The focus of this presentation is the six-month health care journeys of 10 older adults with AF, obtained through individual interviews, monthly telephone conversations, logs, and photos.

Results: Early findings from journey participants revealed day-to-day self-management within a primary health care model. Participants described good relationships with their physicians but experienced challenges with access to care and information, communication with providers, and continuity of care that at times prevented or delayed care seeking.

Conclusions: Rural older adults with AF face challenges in illness management due to current health service delivery.

5095

ARTivism for Individual, Group, and Organization Health

Si Transken, *PhD, RSW, School of Social Work / Gender Studies, UNBC*

Poetry, painting, collaging, storytelling, journaling have proven to be useful resources for work with First Nations, low income, homeless people, and the allies who do their best to support them. In times of budget cut backs, downsizing, outsourcing -- those of us at the front lines resisting oppressions can deepen our connections to each other, to the higher goals of our groups, and to the communities we care about.

This presentation will summarize my experiences and findings of working with New Hope (a survival sex trade group), AWAC (a women's homeless shelter), Take Back the Night organizers/ participants, the UNBC Women's Center, and other groups using canvasing, poetry, storytelling, and other forms of artivist expression. During the last decade I have also supervised and co-facilitated four Women's Studies MA research projects which utilized these techniques. Participating in these social justice processes, events, and networks has also maintained my own sense of courage and vision. Scholars such as Bishop (2006), Chang (2008) and McNiff (2009) will guide my writing.

My objectives will be to encourage more organizations and practitioners to utilize these formats for knowledge translation and knowledge collection. I will describe some of the practical specifics of organizing these activities, resources required, troubles to avoid, and ways to continually build trust with various intersection communities and stakeholders. I have been an activist with women's issues (incest, sexual assault, partner violence, poverty, etc.) for thirty years in northern contexts. I have been teaching in universities for 15 years. The spaces that dis/connect various grassroots vulnerable associations to each other, to the funders, to the universities are always complicated and in movement.

ARTivism is a mode of expression that intrinsically has multiple feedback loops and openings for editing and inviting enrichment.

5063

The Depth of Water Requires Knowledge: Listening to the Voices of the HIV Patient Journey

Patricia Howard, *MA, Researcher, Aboriginal Coordinator, Blood Borne Pathogens Services, Northern Health, BC;* **Bareilly Sweet,** *Regional Coordinator Blood Borne Pathogen Services, Northern Health;* **Theresa Healy,** *Department of Environmental Planning, University of Northern British Columbia/Northern Health;* **Tina Fraser,** *Department of Education, University of Northern British Columbia*

Patient Journey Mapping (PJM) is a well-established resource for health service planning and delivery. The use of this tool can promote an improvement in the health care experience and quality of care for individual patients and clients. It can also identify efficiencies and cost savings for the system as a whole and heighten support to multidisciplinary teams and collaboration among service providers. While PJM is an effective and well tested method for improving the Health Care System, in working with the HIV community in Northern British Columbia it was apparent that, adaptations to this method were needed. The HIV population in Prince George has been identified as a priority as the region represents a majority of BC's HIV cases and increasing rates of HIV/AIDS. In order to identify and address gaps in HIV/AIDS services it was determined that a Patient Journey Mapping was essential.

A majority of the people living with HIV in Northern BC are Aboriginal. This population generally a) has had past negative experiences with the system; b) low level literacy skills; c) distrust of health professionals. In order to address these barriers the transformation of the patient journey mapping occurred in three ways: 1) visual metaphors were solicited (and in this instance emerged as a river and; 2) narrative storytelling framed the individual interviews and; 3) a collective and kinesthetic analysis occurred. The river drawn by the first mapping group was presented and added to at subsequent mapping focus groups.

This presentation is designed to share the experiences and methods of the HIV+ Patient Journey Mapping via stories and experiences as we move towards health through knowledge, research and collaborative action. This process could help to improve access to care for Aboriginal people, while providing a seamless link between patients, service providers, frontline workers and specialists.

THURSDAY, NOVEMBER 14, 2013	
C) Communities and Government Participation **Room 207, Civic Centre** **Chair:** Tamara Checkley	**1530 – 1650**

5119

Systems–level Collaborative Governance for Housing and Food Security in Northern and Remote Communities

Rebecca Schiff, *Division of Community Health and Humanities, Faculty of Medicine and Labrador Institute, Memorial University of Newfoundland*

Along with clean water and sanitation, food and housing can be considered "essential" services due to their centrality to daily living needs. Communities across Canada's provincial north experience significant barriers to providing adequate food and housing. The ability to deliver these essential services is further complicated by rapid economic growth and industrial development. Due to inflation and infrastructure capacity limitations, rapid economic development places significant demand and pressure on delivery of essential services. Simultaneously, and despite a variety of opportunities for economic development in Canada's provincial north, growth is limited by communities' capacity to meet increased demand for food, housing, and other essential services. Although significant in terms of facilitating development, critical issues associated with food and housing often fall through the gaps of government policy and decision-making. Happy Valley-Goose Bay (HVGB) is a remote service-centre community in Labrador experiencing both rapid resource and economic development and the associated pressures on delivery of essential services such as food and housing. In response to these pressures, systems-level collaborative approaches to food and housing issues were developed in an attempt to reconcile policy gaps and address growing needs.

This paper investigates the significance of food and housing issues in the growth of Canada's northern communities. Within that context the gaps in governance of food and housing issues are also examined. We then examine the experience of a community in Canada's provincial north, HVGB, to provide an illustration of the nature of food and housing stress in these communities and how systems-level food and housing collaboratives can lead to innovative and cost-effective solutions to addressing and supporting demand for growth.

5113

Valemount Walks around the World: A Partnership to Develop a Healthier Community

Hollie Blanchette, *Village of Valemount- Northern Health Liason, Valemount Health Clinic;* **Debbie Strang,** *Health Services Administrator for Robson Valley, Valemount Health Clinic*

This presentation will discuss how the health of the community is improved through partnerships. In 2012, a formal partnership was formed between the Village of Valemount and Northern Health. The Village of Valemount received grant money from the Ministry of Community, Sport & Cultural Development and Columbia Basin Trust to build a 3km walking trail through and around the downtown core. Based on community health data, an initiative was created that enhanced the use of the trail and was aimed at increasing the health of the community. A cohort of 12 community members will be tracked for one year, to measure their health stats and determine if this initiative was successful.
The planning committee consists of the Health Services Administrator for Robson Valley, the Health Care Liaison from Village Council, a Public Health Nurse, a Mental Health and Addictions Clinician and a Physician. A working group was created for this specific initiative. This was accomplished through a community meeting, where community members attended an information and sign up session. Community members were engaged to assist with the planning. A website was created to track steps taken, a map was placed in the park where community members could watch their progress, and each walker was provided with a pedometer and a health package.
One of the challenges we had was encouraging people to participate in the tracking cohort. Another challenge that we ran into was the appropriate use of the pedometers. A potential challenge that has been discussed and will continue to be monitored for is the motivation of members to continue with the initiative. 87 community members are registered and have logged 17,450,000 since May 2013. 1 member has reached 1 million steps.
Another success was the implementation of a cohort of community members who will have their health data tracked for a period of one year, to determine the effectiveness of this initiative on health. Community stakeholders – Village of Valemount, Northern Health, community members, business owners and operators.

5120

Developing Resiliency Indices in the Context of Rapid Economic Growth in Northern and Remote Communities

Rebecca Schiff, *Division of Community Health and Humanities, Faculty of Medicine, Labrador Institute, Memorial University of Newfoundland*

Happy Valley-Goose Bay (HVGB) currently serves as an administrative and transportation centre for Labrador in terms of mining exploration and development, potential and existing hydro-electric projects, and tourism opportunities. Recent developments, such as the proposed Muskrat Falls hydroelectric project and the lifting of the ban on uranium exploration in the Nunatsiavut Land Claims area, indicate that the town is poised to experience significant growth over the next decade. It is known that economic growth as a result of resource development in Canada's northern communities, such as that being experienced in HVGB, produces a complexity of economic and social benefits and impacts. Although Social Impact Assessment (SIA) processes can provide some perspective on socio-economic shifts, there is limited capacity to interpret or demonstrate the strengths and resiliency of communities over time and as they adjust to significant growth. Well-being frameworks and resiliency indices could contribute to the development of more holistic approaches for understanding the complexity of economic and social benefits and impacts in northern, resource-driven economies.
This paper discusses the challenges associated with understanding resiliency of northern, remote, and Aboriginal communities in the context of raid economic change. It presents community-engaged methodologies utilized to develop an index to measure, on a longitudinal basis, well-being and resiliency for HVGB in the context of rapid economic change.

The aim of this index is to provide critical information, on a regular and long-term basis, about changes in the well-being of the community and also help to identify factors which contribute to resiliency in health and wellness. Finally, a draft index is presented along with discussion of challenges and opportunities for ongoing refinement of such tools along with approaches to data collection, analysis, dissemination and action.
Our findings indicate that ongoing community engagement is critical to ensuring that indices developed to measure well-being and resiliency are relevant and responsive to the changing needs and circumstances of communities.

5159

Addressing (In) Equity in Health Outcomes for Children with Diabetes in Ontario: How Much the Health System Can Do?

Oxana Mian, *(PhD Candidate), School of Rural and Northern Health, Laurentian University;* **Elizabeth Wenghofer,** *School of Rural and Northern Health, Laurentian University;* **Nancy Young,** *School of Rural and Northern Health, Laurentian University*

Objective: This presentation will discuss a doctoral research proposal that focuses on (in)equity in health outcomes for children with diabetes in Ontario by examining the role of health system in addressing the disparities. Internationally, Canada has a good standing in regards to health outcomes for children with diabetes; however, the outcomes vary significantly for children living in different geographic regions and socio-economic circumstances. In Ontario, a four-fold gap between northern and central regions was found in hospitalization rates of acute diabetes complications. It is believed that adverse diabetes outcomes are associated with poor access to high quality health care. To date, there is extensive research on access to care and health outcomes for diabetes in adults; however, similar research on childhood diabetes is limited.
Method: Canadian Institute for Health Information (CIHI) New Health System Performance Measurement Framework will be used as a conceptual framework. A sequential mixed-method design will include a population-based statistical analysis of administrative data (obtained from the Institute for Clinical Evaluative Sciences), followed by a qualitative inquiry, involving healthcare providers, children and their parents/caregivers. The first stage will measure disparities in childhood diabetes outcomes and identify social and health system factors associated with them. The second stage will explore practices linked to the identified factors and associated with health disparities in this population.
Results: Develop a methodology to measure social and geographic disparities in access to care and health outcomes for children with diabetes; assess the health system role in addressing (in)equity and potential ways to improve health outcomes for this population, particularly for those living in northern and rural parts of the province.
Conclusion: The potential contribution of the research to the field of rural and northern health and possible health system/policy implications will be discussed. Key words: childhood diabetes, equity, access to care, health outcomes, health system performance, northern and rural health

THURSDAY, NOVEMBER 14, 2013	
D) Place-Based Health Issues **Room 208, Civic Centre** **Chair:** Penny Anguish	**1530 – 1650**

5090

Illicit Drug Use in a Small, Northern Rural BC Community: Smaller Communities ARE Different

Kathy Wrath, *Community Researcher and Public Health Nurse, Northern Health Authority;* **Heather Peters,** *Associate Professor, School of Social Work, UNBC;* ***Charlene Burmeister*** *(presenter only)*

This presentation examines the use of illicit drugs in the small, rural community of Quesnel in northern BC and the repercussions for the provision of services to this population in this time of change.
The goals of the research are to better understand the face of illicit drug use in small, northern BC communities, to improve social service and health care provision to these clients, as well as to enhance harm reduction services and improve HIV and Hepatitis C prevention strategies.

Results will be presented from research conducted with almost 200 illicit drug users and explores the demographics of those using including: ages, incomes, gender, education and ethnicity. Patterns of drug use are described including drugs of choice and preferred methods of use. Casual versus recreational use and risk activities will also be presented. It is important to understand the results in the context of place. Thus, some comparisons will be made with I-Track results from Prince George which illustrates that smaller northern communities are somewhat different than larger urban centres despite their similar geography.
The discussion will focus on understanding the similarities and differences between urban and rural areas both in terms of illicit drug use as well as service provision to this population.

5170

Improving Flow in a Rural Health Service Delivery Area to Provide "Care in the Right Place"

Penny Anguish, *Northwest Health Service Delivery Area, Northern Health;* **Jim Aldrich,** *Northwest Health Service Delivery Area, Northern Health;* **Geoffrey Appleton,** *Northwest Health Service Delivery Area, Northern Health;* **Karen Clarke,** *Northwest Health Service Delivery Area, Northern Health;* **Jonathan Cooper,** *Northwest Health Service Delivery Area, Northern Health;* **Edward David,** *Northwest Health Service Delivery Area, Northern Health;* **Sheila Gordon-Payne,** *Northwest Health Service Delivery Area, Northern Health;* **Roxena Hewson,** *Northwest Health Service Delivery Area, Northern Health;* **Jeanette Foreman,** *Northwest Health Service Delivery Area, Northern Health;* **Cormac Hikisch,** *Northwest Health Service Delivery Area, Northern Health;* **Lorna Jefferis,** *Northwest Health Service Delivery Area, Northern Health;* **Sue Livingston,** *Northwest Health Service Delivery Area, Northern Health;* **Davey MacLennan,** *Northwest Health Service Delivery Area, Northern Health;* **Michael Melia,** *Northwest Health Service Delivery Area, Northern Health;* **Ingrid Overbeek,** *Northwest Health Service Delivery Area, Northern Health;* **David Ross,** *Northwest Health Service Delivery Area, Northern Health;* **Dorothy Schiller,** *Northwest Health Service Delivery Area, Northern Health;* **Chris Simms,** *Northwest Health Service Delivery Area, Northern Health;* **Angela Szabo,** *Northwest Health Service Delivery Area, Northern Health;* **Jane Wilde,** *Northwest Health Service Delivery Area, Northern Health*

Issue: Emergency Department and inpatient congestion had become the norm in five northwest BC community hospitals. Typical occupancy was 93%, with many patients requiring an alternate level of care (ALC). Between 25 to 30 individuals (about 25% of the acute beds) were waiting for placement into residential care, typically for greater than 9 months each. Interventions: A system-wide quality improvement initiative called "Care in the Right Place" was implemented beginning November 2012. Inter-professional Local Improvement Teams (LITs) were established in each community to improve flow across the continuum of care. Interventions included introduction of unit and bedside communication whiteboards, FLOW huddles, and interdisciplinary conferences for complex discharges. Efforts were made to more accurately apply ALC designations. Use of short stay residential care beds was improved and focused on convalescent care. Mental health and community care staff were better integrated into acute care routines.
Objectives: Objectives included reducing occupancy rates and reducing ALC to placement to both ensure smooth transition of patients to the right level of care and to optimize the use of acute care and community resources. Results: Preliminary data suggest occupancy rates are on the decline overall. The number of people waiting in an acute bed for residential care was reduced by approximately 50% by June 2013.
Discussion: Evaluation of the initiative showed leadership by the Steering Group, consisting of all NW senior managers and directors, was a key to successful implementation. A project charter with clearly identified goals and tactical strategies focused efforts and laid the groundwork for clear accountability. "Getting started" challenges were addressed by having temporary coordinators initiate new strategies and create momentum. The temporary coordinators were also supported by a NW quality resource person to ensure knowledge translation and continued focus on the project charter. Physician engagement was not as formal as hoped, but informal engagement brought many on board, particularly as the results became apparent.
Conclusions: System-wide quality improvement efforts can be implemented successfully in rural areas to optimize use of acute and community resources.

5083

Culture of Telemedicine: Explaining a New Paradigm

Sidney Shapiro, *School of Rural and Northern Health, Laurentian University*

Telemedicine is a new technology in the healthcare field for many patients used to in person interaction with their physician or other healthcare provider. As telemedicine is being used in new ways to support many new roles for patient/healthcare interactions in rural and Northern communities, new ways of acclimating patients to this technology are needed to be explored. This paper will discuss various communication strategies, discussion points, and ideas for discussing and integrating telemedicine into a setting where it would perhaps be new and unfamiliar.

There is a set cultural/social/expected schema when dealing with a health care provider, and this is not always readily apparent or subject to overt discussion. A need for a discussion with patients around telemedicine to adapt them to the new technology, and to address their expectation of what a visit will look and feel like. It is important that the patient know what to expect, and a plan is in place to mitigate adverse reactions to the unknown. This does not only include an overt published pamphlet of information, but a pattern of communication points, integrated into every aspect of the clinic, which serves to extend the expected health care provider schema to include the telemedicine option as an expected possibility.

Various strategies for discussing telemedicine, from communication, word choices, awareness are part of a holistic approach to promoting telemedicine. Telemedicine will then become an expected element of healthcare and provide a level of comfort and patient acceptance instead of being caught unawares to a new technology which may be unfamiliar.

5181

Validation of a Community Support Scale and Its Role in Childhood Asthma

Lena Xiao, *MD Candidate, College of Medicine, University of Saskatchewan;* **Donna Rennie,** *College of Nursing, University of Saskatchewan;* **Oluwafemi Oluwole,** *PHARE, University of Saskatchewan;* **Anna Afanasieva,** *CCHSA, University of Saskatchewan;* **Josh Lawson,** *CCHSA, University of Saskatchewan*

Background and Objectives: Health and well-being are associated with levels of social support. Unfortunately, there are few indicators of overall community support, an important contextual factor. We sought to validate an overall indicator of community support, investigate if community support differed by urban-rural status, and investigate if this indicator of community support is associated with childhood asthma.

Methods: A cross-sectional study was conducted in February 2013 to survey school aged children from two schools in North Battleford, Saskatchewan and two from the surrounding rural area. Parents self-completed the survey on behalf of subjects and reported community support through the use of a visual analog scale. The scale was validated by comparing levels of community support between indicators of socio-economic status and community involvement. The association between community support and asthma presence was measured using multiple logistic regression to adjust for confounders.

Results: In total, 149 children took part. Mean community support levels were statistically different comparing children living on farms (73.53) to town dwellers (59.41) and children living on a reserve (39.00). Community support was lower in children with asthma (57.74) compared to those without (63.78). The mean level of reported community support was significantly reduced with traditional medicine use, single household environment, little money leftover at the end of the month, inability to meet basic living requirements, and maternal smoking during pregnancy. Time to travel to an emergency healthcare centre and community support level are correlated (r=0.255, p=0.003). Community support level did not significantly predict childhood asthma presence (OR=0.998, 95% CI 0.965-1.033, p=0.92).

Conclusion: The variables predicted to correlate with social support followed the expected pattern, suggesting that the visual analog scale used to measure community support is an appropriate measure. Community support level does not significantly predict childhood asthma presence.

FRIDAY NOVEMBER 15, 2013	
A) Rural Health Issues **Room 201-203, Civic Centre** **Chair:** Arcadio Viveros Guzman/Philippe Roy	**1000 – 1200**

5157

Latino Temporary Farmworkers in Saskatchewan: Social Aspects of Work Experiences, Occupational Health, and Sustainability

Arcadio Viveros-Guzman, *PHARE, PhD. Candidate, School of Environment and Sustainability, University of Saskatchewan*

In Saskatchewan little is known about how social aspects shape the strengths, opportunities, training needs, and challenges that Latino temporary farmworkers (LTFs) experience with occupational health and safety.
The purpose of this research is to describe the work experiences of LTFs hired at Saskatchewan family farms to better understand the social aspects that influence workers' occupational health and safety. Qualitative interviews were used to describe workers' work experiences and employer perspectives. Thematic analysis is used to describe and interpret narrative data. Broadly, factors such as workplace cultures, occupational health and safety concerns, and training and information needs vary across farms, sectors, and personal experiences. For example, agrochemicals are not used in beekeeping. At some other farms where agrochemicals are part of the production regime, LTFs do not spray them because specific pesticide application knowledge (in English) is required. Other workers reported having applied agrochemicals and having received training. Employers reported that they teach the workers how to carry out tasks safely with demonstrations, using some words in Spanish and with the help of workers who speak some English; however, more detailed training and information are needed in Spanish, especially when it comes to distinguishing among the terms pesticide, herbicide, fungicide, liquid, and agrochemical. In terms of personal protective equipment, workers do not always wear it because of inappropriate sizes, uncomfortable designs, and rush hours. Regarding health care services, more information about how to locate clinics and Spanish-speaking family doctors is needed. Bilingual posters at the worksites would be helpful to display such information. In general, workers (particularly women) have a more holistic concept of health indicating that "health is everything." More attention on certain aspects of language barriers, cultural differences, workers' previous habits, rush hours, and specific training needs will develop occupational health and safety. Without LTFs, some farms may be at risk of disappearing. LTFs and occupational health and safety are seen as key factors for sustaining agriculture.
Financial Support: CIHR-PHARE.
Keywords: Temporary farmworkers, occupational health, sustainability.

5148

A Study of the Respiratory Health of First Nations Children Living in Rural Saskatchewan: Methodological Approaches and Comparisons with the Saskatchewan Rural Health Study - Children's Component

Donna Rennie, *College of Nursing, University of Saskatchewan;* **Chandima Karunanayake,** *Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan;* **Punam Pahwa,** *Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan;* **Louise Hagel,** *Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan;* **J. Seeseequasis,** *Beardy's and Okemasis First Nations, Duck Lake, SK;* **A. Naytowhow,** *William Charles Health Centre, Montreal Lake First Nations, Montreal Lake, SK;* **B. Russell,** *Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan;* **S. Warkentin,** *Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan;* **J. Dosman,** *Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan; and the First Nations Lung Health and Saskatchewan Rural Health Study Groups*

The Saskatchewan First Nations Lung Health Project (SFNLH) and the Saskatchewan Rural Health Study (SRHS) are two 5 year prospective cohort studies of respiratory health that include the study of rural children ages 6 to 17 years. Both studies are being conducted through the Canadian Centre for Health and Safety in Agriculture. Although most data components obtained were similar between studies, methodological approaches differed and may have influenced overall response rates.
Methods: The SRHS has completed the first phase of data collection. The second phase will commence this winter. The SFNLH has just completed the first phase of data collection for children. Questionnaire surveys distributed through the schools to parents included consent for clinical assessment.

Access to study participants was obtained with permission of local school officials (SFNLH) or with School Divisions (SFNLH and SRHS). While assent and consent forms, approved by the University of Saskatchewan Ethics Review Board, were distributed with the questionnaires in both studies, the consent used in the SRHS was modified and streamlined prior to submission for ethical approval with the SFNLH study. In the SRHS, questionnaires were delivered to the schools for distribution by school personnel. With the SFNLH study, research nurses located in the schools distributed and collected the questionnaires. As well, each participant to the First Nations Survey received a $5.00 gift card. No incentive was offered to SRHS participants.
Results: Two First Nations Reserves, one in northern Saskatchewan and one centrally located, participated in the SFNLH study while 39 schools representing the north west, north east, south west and south east quadrants of the province participated in the SRHS. There were 2383 participants in the SRHS for a response rate of 42.0%. In the SFNLH study, a better response rate (63.1%) was achieved for schools on the reserves with 297 of 471 children participating. Sex distributions were similar between studies with slightly more female participants in the SFNLH study (53.0% versus 50.3%).
Conclusions: Researchers face several challenges in the participation of children in rural research. Having researchers in continuous community contact and providing incentives during the data collection period improves study response.

5153

Management of Stage II & III Rectal Cancers in BC: Is There a Rural-Urban Difference?

Shilo Lefresne, *Radiation Therapy Program, Vancouver Cancer Center, BC Cancer Agency;* **Winson Cheung,** *Systemic Therapy Program, Vancouver Cancer Center, BC Cancer Agency;* **John Hay,** *Radiation Therapy Program, Vancouver Cancer Center, BC Cancer Agency;* **Carl Brown,** *Department of General Surgery, St Paul's Hospital; Caroline Speers, Cancer Surveillance and Outcomes, Population Oncology, BC Cancer Agency;* **Rob Olson,** *Radiation Therapy Program, Center for the North, BC Cancer Agency*

Objectives: The aim of this study was to identify differences in the types of surgical procedures performed, and utilization of radiotherapy (RT) and chemotherapy in patients with stage II and III rectal cancer from rural, small and large local health authorities (LHA).
Methods: We performed an exploratory analysis of stage II and III rectal cancer patients referred to the BC Cancer Agency from 2004-2009, using prospectively collected data from our Gastrointestinal Cancers Outcomes Database. Patients were defined as living in rural, small or large LHA as described by Olson et al (2012). Descriptive statistics were used to describe patient, tumor and treatment characteristics. Differences in wait-times, treatments, and outcomes between LHA were analyzed using ANOVA, chi-squared, and log-rank tests, respectively.
Results: 1964 patients were identified. At the time of diagnosis, 251 (13%) patients lived in rural, 425 (21%) in small, and 1288 (66%) in large LHA. Across LHA, there was no difference in rates of low anterior resections or abdominoperineal resections (APR), with 33%, 39%, and 35% of patients in rural, small and large areas, respectively receiving APRs (p=0.30). The proportion of patients who did not receive RT across rural, small and large LHA were similar (14%, 13%, 12%, p=0.80). Chemotherapy was delivered with curative intent to 57%, 56%, and 57% of patients in rural, small, and large LHA, respectively (p=0.89). There was no difference in 5-year disease free survival (84%, 86%, 85%, p=0.98) or 5-year overall survival (58%, 59%, 57%, p=0.98) based on LHA. Conclusions: The management and outcome of patients with stage II and III rectal cancers seems to be comparable across LHA in BC.

5076

Male Farmers Negotiating Help-Seeking: How They Do It? A Qualitative Study Connecting Rurality, Gender and Health

Philippe Roy, *PHARE, Ph.D candidate, School of Social Work, Université Laval;* **Gilles Tremblay,** *Professor, School of Social Work, Université Laval*

In many regards, male farmers can be considered to be a vulnerable and marginalized group, experiencing high rates of suicide, psychological distress and low use of health services. These issues and their impact of communities' health remains largely ignored or neglected in research, policies and training. This paper aims to highlight important connections between rurality, farming and masculinities in the context of men's mental health.

Early findings are presented and discussed from an ongoing project in which 32 male farmers from Québec, Canada have been interviewed about sources and manifestations of stress, coping strategies and their perception of masculinity. Preliminary reflections on the data indicate pride and lack of knowledge about services are the main barriers to help-seeking, but it can be legitimated in certain contexts (divorce or other psychosocial crisis) and by certain alignment with male ideals. Furthermore, gender-based strengths and recommendations for practice will also be discussed.

5070

Use of Single Fraction Palliative Radiotherapy for Bone Metastases: Population Based Practice Patterns Over a Five Year Period

Robert Olson, *Department of Radiation Oncology, University of British Columbia;* **Manpreet Tiwana,** *Department of Radiation Oncology, BC Cancer Agency;* **Mark Barnes,** *BC Cancer Agency;* **Stacy Miller,** *Department of Radiation Oncology, University of British Columbia;* **David Hoegler,** *Department of Radiation Oncology, University of British Columbia*

Purpose: There is abundant evidence that a single fraction (SF) of palliative radiotherapy (RT) is equivalent to more inconvenient and costly courses with multiple fractions, in certain circumstances. Despite this, variability in preference for use of SF is reported. The purpose of this research is to explore factors associated with use of SFRT for bone metastases.
Methods: A retrospective review of all 16,400 courses of palliative RT to bone metastases (in 8,613 patients) was performed from 2007 - 2011 in British Columbia. Radiation Oncology characteristics were collected from the practitioners themselves, or their department head.
Results: There was significant variation in the use of SFRT for bone metastases between the provincial cancer centres ($p<0.001$; range 24% - 72%). Over the 5 year study period, the use of SFRT dropped from 49% to 47% ($p<0.001$). Appropriately, the use of SFRT was more commonly used in patients who passed away within 2 weeks (63%), versus those who were alive 6 months later (45%). On multivariable analysis, increasing patient age (odds ratio [OR] 1.01 per year; $p < 0.001$), and increasing Radiation Oncologist years of experience (OR 1.02; $p=0.003$) were associated with increased use of SFRT. Conversely, the calendar year (OR 0.97; $p=0.002$) was inversely associated with use of SFRT. With genitourinary tumours as the reference group the OR for use of SFRT was 2.53 (95% CI: 1.95 - 3.27), 1.79 (1.38 - 2.32), 1.95 (1.58 - 2.42), and 0.77 (0.57 - 1.03) for breast, lung, hemato-lymph, and gastrointestinal, respectively. After controlling for the above, there was still significant variability between the numerous cancer centres provincially, varying between OR 0.25 (0.16 - 0.38) and 2.37 (1.73 - 2.32) in comparison to the largest centre as a reference.
Conclusion: There is significant variability in use of SFRT for bone metastases in a provincially run radiotherapy program, and decreasing use of SFRT with time. After controlling for potentially confounding factors, it appears that different cultures exist within each centre, where individual radiation oncologists practice similar to their colleagues. These results have motivated further research and novel efforts to better standardize approaches to palliative RT use in British Columbia.

5182

A Study in the Effectiveness of Online CPR Recertification Training for Rural and Remote Nurses in Canada

Lorelei Rogers, *RN, MA, Nursing Services and Care Lead, Interior Health Authority, BC*

High-quality cardio-pulmonary resuscitation (CPR) can increase survival from a cardiac event and better quality of life post-event (Whitcomb & Schmied-Blackman, 2007). This can be made possible not only by an experienced team, but by more frequent training and refreshers for health care providers (Hamilton, 2005). Rural and remote nurses may experience skill decay due to low volume CPR use, and location barriers that contribute to infrequent CPR recertification, two conditions that lead to low-quality CPR (Hamilton, 2005). Not available in Canada, online CPR training in the United States is accepted as a way to provide current, timely, and accessible recertification for health care professionals (ProCPR©, 2009).

To assess the effectiveness of online CPR training in meeting Canadian rural and remote nurses' recertification needs, I used a pre- and post-training intervention construct. A total of 32 nurses self-reported their competency prior to, and following, an online CPR recertification training course. I obtained data to answer five research questions regarding current CPR practices, barriers to recertification, the extent that the online CPR course affected nurses' competencies, nurses' satisfaction with online CPR training, and the potential cost/benefit for employers.
On average, participants used CPR once in the last year. Within the total group, 14 of the nurses (43.8%) had an expired CPR certificate that had been outdated, on average, for over 17 months. Both nurses with expired CPR certification (56.2%), and nurses with current CPR certification (56.2%), improved significantly from pre-training scores (M = 19.25, SD = 6.201) to post-training scores (M = 22.88, SD = 5.369) with $p < 0.001$; t (31) =-4.048. Cohen's d was .63. Nurses with expired CPR certification experienced a greater increase in competency post-training, than nurses with current CPR certification, confirming the implications of skill decay and lapses in training. Despite hesitation at refreshing a decidedly tactile skill online, the study participants voiced overwhelming satisfaction with the quality, and impact on competency that they obtained through the online format. This study concludes with statistical, practical, clinical, and potentially substantial, economic significance for the implementation of online CPR recertification and training in Canada. A quick overview will be presented at this forum.

FRIDAY, NOVEMBER 15, 2013	
B) Health Promotion Interventions **Room 204-206, Civic Centre** **Chair:** Tanis Hampe	**1000 – 1200**

5081

Reducing Health Inequities: Innovative Public Health Approaches to Promote Health Equity

Wanda Martin, *RN, Ph.D. Candidate, University of Victoria;* **Bernie Pauly,** *RN, Ph.D, University of Victoria;* **Marjorie MacDonald,** *RN, Ph.D, University of Victoria;* **Trevor Hancock,** *MB, BS, MHSc, University of Victoria;* **Warren O'Briain,** *MA, British Columbia Ministry of Health;*

Connie Zeisser, *Ph.D, University of Victoria;* **Kathleen Perkin,** *MA, University of Victoria;* **Corrine Lowen,** *MA, University of Victoria*

The objective of this presentation is to provide insights into the use of health equity tools in public health practice with a rural and northern focus as a means of increasing action on reducing health inequities. Reducing health inequities has become a national and provincial public health priority. The CIHR funded Equity Lens in Public Health (ELPH) research program is an integrated policy research initiative drawing on participatory research principles and innovative research methods to guide and inform learning about the integration of an equity lens in public health and the contribution of public health to the promotion of health equity. In four studies over five years, this research includes an environmental scan of how health authorities are addressing health inequities, a review and inventory of equity of health equity tools, a social network analysis identifying strategies to strengthen intersectoral engagement and a look at power and ethics in public health as practitioners work toward reducing health inequities.
This program of research will bring to light innovations, partnerships, and strengths among BC public health practitioners and policy makers as they incorporate a health equity lens that is attentive to needs of vulnerable populations as well as rural and urban differences. Applied critical analysis of health equity tools is central to integrating equity lenses that contribute to reducing health inequities in public health policies and programs. A growing number of lenses, gauges, frameworks, and tools aim to increase considerations of health equity in policies and programs. Initially, we conducted a literature and web-based search to develop an inventory of health equity tools for policies, programs and practice in public health. We are undertaking a three-stage process of analysis of the identified health equity tools beginning with description of the tools followed by assessment of theoretical underpinnings and practical utility. Concept mapping techniques are being used to generate practical criteria to assess relevance of health equity tools for public health practice in different geographic regions.

The use of effective health equity tools is one policy approach that holds promise for improving health outcomes for rural residents and their communities.

5111

Smoking Patterns among Surgical Patients at Two Northern BC Hospitals: Implications for Supporting Smoking Cessation

Dr. Cherisse Seaton, *Research Coordinator, Harmonization Project, UBC's Okanagan campus, Kelowna, BC;* **Dr Joan L. Bottorff,** *Professor and Director, Institute for Healthy Living and Chronic Disease Prevention, UBC's Okanagan campus, Kelowna, BC*

With funding from the Canadian Cancer Society, the "Stop Smoking Before Surgery" initiative was recently launched to reduce the incidence of cancer in northern British Columbia (BC) by supporting individuals to stop smoking before surgery. The team includes partners from the Canadian Cancer Society, Northern Health, and the BC Cancer Agency along with researchers from the University of British Columbia and Athabasca University working together to design, deliver, and evaluate the pilot initiative in Prince George and Prince Rupert.

Heightened concerns about one's health prior to non-emergency surgery presents as an important time to provide smoking cessation counseling. As part of the larger project, baseline data were collected. Surgical patients who underwent non-emergency surgery at the University Hospital of Northern BC or Prince Rupert Regional hospital between December 1, 2012 and March 31, 2013 (n=2175) were screened and over 250 eligible patients who reported smoking prior to surgery were contacted and invited to complete a telephone questionnaire.

Information about the proportion of patients who reported quitting smoking prior to their surgery and patients' knowledge and use of programs available to support smoking cessation in northern BC will be presented. The relationship between advice from health care providers and patients' attempts to quit prior to surgery will be explored during this presentation.

The findings of this research have implications for the "Stop Smoking Before Surgery" program, as this data provides baseline information about smoking patterns among surgical patients at two northern BC hospitals. Recommendations for supporting smoking cessation before surgery will be presented.

5109

Implementation of the "Stop Smoking Before Surgery" Initiative in Northern British Columbia

Nancy Viney, *Population Health, Tobacco Reduction, Northern Health;* **Eleanor Taylor,** *Prevention Programs Administrator, British Columbia Cancer Agency;* **Kerensa Medhurst,** *Health Promotion Coordinator, Canadian Cancer Society*

The smoking rate in northern BC is 24%, substantially higher than the provincial average of 14% in BC. The region also has the highest rate of lung cancer in the province. Consequently, implementing new approaches to support smoking cessation is a priority for strengthening cancer prevention services in northern BC. The Canadian Cancer Society, the BC Cancer Agency, and Northern Health along with researchers at the University of British Columbia are collaborating to implement the "Stop Smoking Before Surgery" initiative with the shared goal of reducing the incidence of cancer in northern BC. Most smokers want to quit and non-emergent surgery provides an opportunity to re-open discussions about quitting. Patients who quit smoking 6-8 weeks prior to their procedure reduce their risk of complications, lower their chance of infections, and reduce their length of hospital stay.

Objective: The objective of the "Stop Smoking Before Surgery" program is to increase awareness of the benefits of stopping and to support patients in their decision to stop smoking before surgery.

Description of SSBS Implementation: The SSBS program will support health professionals to consistently provide advice and counseling with patients who smoke – before, during and following their surgery. Systems and resources have been developed to encourage all health care professionals to discuss the importance quitting smoking prior to surgery and remaining smoke free during recovery. All health care providers are encouraged to assess tobacco use and link patients to BC's smoking cessation resources. Patients can access free pharmacotherapy and register for Quitnow services (www.quitnow.ca) where they will find specific resources for stopping smoking before and after surgery. An evaluation is in place to determine the success of this initiative.

Conclusion: Implementation of the SSBS program demonstrates how partnerships among groups with common goals for cancer prevention can engage community and acute care partners to address tobacco and help patients quit.

5154

Clinical Tobacco Intervention Program (CTIP) and Tobacco Education Action Module (TEAM): Easy to Use Tools to Support Tobacco Cessation (Brief Intervention and Intensive Counselling) in Professional Practice and Community Settings

Eleanor Taylor, *Prevention Programs Northern Administrator, BC Cancer Agency;* **Sonia Lamont,** *Prevention Programs Provincial Director, BC Cancer Agency*

CTIP and TEAM tobacco cessation resource tools were created as BC resources to assist health care and community based professionals to support clients to stop using tobacco. CTIP was revised in 2011 through BCCA Prevention Programs leadership and in collaboration with the five regional health authorities. Both resources are available on www.tobaccoed.org. More than 2000 professionals have completed the course(s) and they have been favourably evaluated by health care professionals throughout BC.
Objective: CTIP – Clinical Tobacco Intervention Program was created collaboratively as a BC resource for health care professionals with the objective of systematizing tobacco cessation within professional practice. TEAM – Tobacco Education Action Module was created for use by a wide variety of community based professionals including educators and youth workers. It has less of a clinical focus and provides an overview of behaviour change, the language of support, tobacco legislation and the tobacco marketplace.
Description: These tools to support tobacco cessation are web-based and also available in PDF downloadable format. The CTIP Table of Contents is organized into key sections which include: Tobacco Dependence and Addiction, Clinical Treatment Program (Stages of Change, Planning to quit, NRT and Pharmacotherapy, Medications) and a Clinical Tool Kit of usable forms and templates which can be downloaded for immediate use in professional practice or community settings.
Conclusion: CTIP and TEAM are BC based resources with relevant information specific to the Province and the work of the Ministry of Health's Tobacco Control Program. They include BC statistics, recent legislation, and support for tobacco cessation based on research and best practices.

5062

Exclusive Breastfeeding Knowledge Translation among Tlicho Mothers: A Community Based Participatory Action Approach

Raissa Dickinson, *MPH, University of British Columbia;* **Pertice Moffitt,** *PhD, RN, Aurora Research Institute/Aurora College*

Breast feeding is a maternal infant practice that affects lifelong health. The purpose of this presentation is to share the results of a breast feeding project that occurred in a remote community in the Northwest Territories, Canada. This project comprised of knowledge translation and dissemination of breast feeding research through community participation and collaboration with a Tlicho advisory group and a group of local community researchers. The research design included a retrospective chart audit from hospital birth records of Tlicho women who gave birth during the period of January 1, 2010 to December 31, 2012 and semi-structured interviews with Tlicho mothers and elders to provide culturally specific data on the determinants of breastfeeding.
Findings identified that the rate of exclusive breastfeeding initiation in the Tlicho region is less than 30%. Themes from the interviews identified factors that related to the pull to formula and the pull to breast feeding. Visual materials were identified as the best way to translate breastfeeding information to the Tlicho community. An informational breastfeeding photo book and video were created using community photographs and art work. Translation for the written material was completed by a community elder. The project will be described along with lessons learned and implications and recommendations for future work in the community.

5179

The Role of Primary Health Care Services in Managing Factors that Contribute to Greater Risk of Acquiring or Spreading HIV/AIDS Among People who Inject Drugs

Jamie Reschny, *Health Sciences, PhD Student, University of Northern British Columbia*

Objectives: Primary health care (PHC) service delivery is a significant component of the health care services provided to those affected by HIV/AIDS throughout the world. At times, these PHC services need to work to address marginalized populations, such as People Who Inject Drugs (PWID) who face multiple, intersecting factors that contribute to poorer health outcomes. This presentation will explore the role of the most significant contributing factors that increase the risk of acquiring or spreading HIV among PWID, and what PHC services are in place to address these contributing factors globally, but with particular relevance to the northern, rural Canadian context.
Methods: This presentation is the result of a comprehensive review of literature, including an electronic search through several databases, grey literature and hand searches. Search terms included: "primary health care", "injection drug users/people who use drugs", and "HIV". A total of 110 articles and grey literature sources were identified. Of these types the majority were from Canada, the United States, and Australia.
Results: For PWID, illicit injection drug use, sharing of needles and injection equipment, use of other non-injected drugs, and risky sexual behaviours were amongst the most significant factors contributing to an increase in risky behaviour and subsequently increased risk of acquiring or further transmitting HIV. We also found that to adequately provide PHC services, health care practitioners must consider the conditions which create the unequal burden of ill health for PWID. This includes, not only incorporating a detailed knowledge of the social determinants of health encountered by many PWID into the design of services, but also taking into account the multiple factors that contribute to additional risky behaviours.
Conclusions: In order to be more effective, national, provincial and territorial governments in Canada need to agree upon the most effective delivery of a package of PHC services that can also be slightly adapted to fit the needs of particular, underserved populations of PWID. Canada will have even greater success with strong government leadership that has knowledge of the contributing factors that are fueling the HIV epidemic among PWID.

FRIDAY, NOVEMBER 15, 2013	
Room 207, Civic Centre **C) Education of Rural Health Professionals** **Chair:** Stacey Lovo Grona/Yvonne DeWit	**1000 – 1200**

5147

GP Surgery: Anyone Interested?

Chelsey Ricketts, *MD, CCFP, Family Practice Anesthesia Program, UBC;* **Amber Bacenas,** *MD, CCFP, Bella Coola Medical Clinic;* **Dr Jonathan Berkowitz,** *PhD, University of British Columbia, Sauder School of Business;* **Nadine Caron,** *Senior Author, MD, MPH, FRCSC, Assistant Professor Department of Surgery, UBC, Department of Surgery, UHNBC*

Objective: To assess awareness of, exposure to, and interest in GP Surgery (GPS) and Enhanced Surgical Skills (ESS) amongst family practice (FP) residents in Western Canada.
Methods: An anonymous, cross-sectional, web-based survey distributed to all FP residents at the Universities of British Columbia, Alberta, Calgary, and Saskatchewan.
Results: There were 174 responses (27.2% response rate). A considerable minority of respondents were unaware of GPS (9.9%) and ESS (17.9%). Awareness was higher amongst those from rural hometowns (GPS and ESS awareness 100% and 94.1% respectively), and with prior GPS exposure (GPS and ESS awareness 96.9% and 95.4% respectively). A minority (38.2%) had previous GPS exposure, with exposure higher in respondents from rural training sites and in the second residency year (72.5% and 47.4% respectively). Amongst respondents, 25.1% were considering ESS training.

Strongest factors encouraging training included increased procedures, challenging medicine, and impact on patient outcomes. Importance of ESS training opportunities and service in Western Canada were rated highly.
Conclusions: Considerable interest exists in ESS training amongst FP residents in Western Canada, particularly those at rural training sites. GPS exposure during training fosters interest and awareness. This information contributes to development of formal ESS training programs and FP residency curricula.

5067

The Path Forward for Inter-Professional Education and Practice in Northern Health

April Hughes, *Health Services Administrator, Northern Health;* **Raquel Miles,** *Lead for Community Programs Integration, Northern Health*

Northern Health Lakes and Omineca Districts participated in the British Columbia Inter-professional Rural Program (IRPbc) between 2008 - 2012. Interest and uptake of the IRPbc program was largely based on the alignment of the underlying IRPbc principles and philosophy with the Northern Health focus on enhancing primary health care through an integrated service model. The development of interdisciplinary preceptorships for health care students created the opportunity to engage local health care professionals in the experience of team-based interdisciplinary care using an education lens.
Two key elements to support the student interdisciplinary experience emerged as foundational. The first was the identification of a local individual to provide support and coordination for students and the preceptors. This individual provided a consistent point of contact and served to promote the alignment with Northern Health strategic directions, translate knowledge and education benefits, and promote the underlying goals and philosophy of inter-professional service delivery model. The second key element was the identification of local student housing. A lack of short term housing impeded students coming to the community, thus removing the experience for preceptors to participate in, and learn from, an interdisciplinary model of service delivery.
Participation in the IRPbc program has fostered an understanding of the power of inter-professional working teams and augmented the adoption of an integrated health services model for care delivery. In keeping with the Northern Health strategic direction of adopting interdisciplinary integration for the provision of all health services, it is our belief that with dedicated resources and active engagement processes we can continue to build on this momentum and foster the development of inter-professional models of service delivery and learning throughout the north.

5065

A Double Whammy! New Baccalaureate Nurse Graduates' Transition into Rural Nursing

Jean Smith, *MN student, RN, Centre for Nursing and Health Studies, Athabasca University;* **Virginia Vandall-Walker,** *PhD, RN, Centre for Nursing and Health Studies, Athabasca University*

Objectives: Every year, a number of new baccalaureate nurse (BN) graduates choose to work in rural acute care hospitals. While Canadian and international studies about novice nurse transitions have been conducted, findings have been based exclusively on data from urban or urban/rural mixed participant cohorts. Consequently, little is known about new BN graduates' transition experiences into specifically rural acute care environments. Exploring this phenomenon is timely in light of current Canadian evidence signifying high registered nurse (RN) retirement rates in all sectors, migration of some rural RNs to urban centres, significant turnover intention and attrition rates of novice RNs, and low novice RN retention rates in rural communities.
Methods: As the purpose of this study was to generate practical knowledge about the phenomenon of transition as it relates to rural nursing, Sally Thorne's Interpretive Description research approach was chosen to address the question "How do new BN graduates describe the experience of transitioning into the rural acute care environment?" This approach facilitated the interpretation of individual and group perspectives about the phenomenon of transition and the identification of strategies to enhance positive new BN graduates' transition experiences. Following ethics approval, face-to-face interviews were conducted with 12 new Alberta BN graduates and constant comparative data analytic techniques were used.
Results/Findings: The stories of the participants reveal the overarching theme of "A Double Whammy" and two major themes of "A Surprise: I'm A Generalist!" and "A Shock: I'm It!"

Conclusions: Findings to date suggest three strategies that could positively influence new BN graduates' transition into rural acute care nursing: student preceptorship placements in rural acute care facilities, formalized comprehensive orientation programs, and access to on-site clinical nurse educators.

5117

Continuing Interprofessional Education Outreach for Rural and Remote Locations

Stacey Lovo Grona, *PHARE, College of Medicine, University of Saskatchewan;* **Heather Stenerson,** *College of Medicine, University of Saskatchewan;* **Brenna Bath,** *School of Physical Therapy, College of Medicine, University of Saskatchewan*

Objectives: To describe how continuing interprofessional education (CIPE) program planning and staged learning theory were used in the needs assessment and evaluation of a CIPE event in a rural health region.
Methods: A planning committee, consisting of urban (i.e. University) educators and rural health region practitioners, followed a CIPE planning template which had been adapted for rural regions to create a CIPE learning event in a rural health region. This allowed the University health educators to bring an interprofessional education opportunity out of an urban location, to the rural area where the professional practice occurs? The event was promoted and supported by the rural health region, was attended by members of teams throughout the health region, and included rural regional experts as speakers. A targeted needs assessment including both clinical and interprofessional content was conducted using clinical vignettes. A pre/post test design based on staged learning theory allowed participants to identify their stage of learning in 11 interprofessional health care scenarios. Participants rated self-reported comfort levels that reflected stages of behavioural change related to interprofessional care. Staged learning theory suggests learners will be at different stages and will ideally move from one stage to another as a result of an educational intervention.
Results: There was a significant change in overall survey responses, $p=0.003$, demonstrating that participants moved from scanning and evaluation to learning and gaining experience stages. There was also significant change in stage of learning for scenarios on interprofessional assessment of neuropathic pain, interprofessional management of neuropathic pain, and the medicolegal aspects of use of technology to facilitate interprofessional team building.
Conclusion: CIPE can be successfully delivered in rural regions by University (urban) educators, with careful attention to a planning committee compliment of urban educators and rural practitioners, promotion by the rural region, and identification of rural regional leaders as speakers and planning committee members. Attention to the curriculum development process – with an emphasis on the relationship between needs assessment and evaluation – demonstrated that an educational intervention can stimulate progressive movement along the learning/behavior stage continuum.

5084

Addressing the Shortage of Rural Dental Practice: Learning from an Effective Discussion Forum

Elham Emami, *Department of Restorative Dentistry, Faculty of Dentistry, Université de Montréal;* **Christophe Bedos,** *Oral Health and Society Research Unit, Faculty of Dentistry, McGill University;* **Anne Charbonneau,** *Department of Oral Health, Faculty of Dentistry, Université de Montréal;* **Gilles Lavigne,** *Department of Oral Health, Faculty of Dentistry, Université de Montréal*

Objectives: There is a disproportionate geographical distribution in the Canadian dental workforce, with a negative impact on rural residents' access to oral health care. One way to address this problem is to encourage knowledge transfer strategies and build a scaffold that will address the rural oral health care professional shortage.
Disscussion: This report presents the findings of the second phase of a knowledge transfer process involving educational policy makers, health care and dental care service providers, representatives of dental and public health associations and aboriginal organizations, community members, researchers, and dental students. The purposes of this discussion forum were: (1) to stimulate interest in the problem of rural dental workforce shortage and to make known the impact of the present situation, and (2) to critically reflect on action strategies that will facilitate access to dental care for Quebec's rural and remote population. Three round tables were held and forty-eight people exchanged views regarding facilitators and motivators, pedagogical approaches, and innovative tools.

Themes which emerged during discussions included: rural demystification, rural dental education and positive discrimination, financial incentives, leadership reinforcement, multidisiplinarity, and social networks.
Conclusions: The forum discussion was effective and led to new partnerships and action research initiatives.
development process – with an emphasis on the relationship between needs assessment and evaluation – demonstrated that an educational intervention can stimulate progressive movement along the learning/behavior stage continuum.

5125

Rural Dental Practice: Quebec Dental Medicine Students' Perspectives

Nastaran Sharifian, *Faculty of Dental Medicine, University of Montreal;* **Anne Charbonneau,** *Faculty of Dental Medicine, University of Montreal;* **Gilles Lavigne,** *Faculty of Dental Medicine, University of Montreal;* **Elham Emami,** *Faculty of Dental Medicine, University of Montreal*

Background: The distribution of dental workforce across Canada is highly skewed toward urban areas, a situation which favours disparities in oral health care access. Engaging oral health care professionals in rural dental practice necessitates understanding the personal and professional points of view of these professionals, as well as barriers and motivators in regard to the choice of practice. However, little research exists on how dental students perceive working in rural and remote areas. Therefore, this study aimed to explore the knowledge and perspectives of future Quebec dentists in regard to rural dental practice.
Methodology: We conducted a qualitative interpretive descriptive research study in two major Faculties of Dental Medicine in Quebec. A purposeful sampling and snowball technique were used to recruit fourth-year dental students as study participants. Audio-recorded, 60–90 minute, face-to-face, semi-structured interviews were conducted, with the number of interviews being determined by saturation (n=15). Qualitative data were analyzed using a thematic approach including interview debriefing, transcript coding, data display, and interpretation.
Results: Interviews clarified main issues that affect dental students' motivation to work in rural and remote areas. These include lack of knowledge and familiarization with rural communities and rural dentistry, strong bonds with nuclear family, and rural life style. Students expressed that undergraduate dental education, financial rewards, professionalism, professional support, and social media can positively affect their perspective in regard to rural dental practice.
Conclusion: The results of this study support the implementation of strategies that are known to increase the knowledge and motivation of dental students toward rural dental practice. Educational policy makers have an essential role in encouraging these facilitating policies and strategies.

FRIDAY, NOVEMBER 15, 2013	
D) Research Methodologies and Knowledge Translation **Room 208, Civic Centre** **Chair:** Tammy Hoefer	**1000 – 1200**

5150

"Performative Research" Developing Local Perspectives on Local Problems

Andrew Burton, *BSW, Med, Population Health, Tobacco Reduction, Northern Health*

Research is a key component of effective change creation. This presentation will show how performance using a theatre process can be used effectively as a research method to identify issues of concern to a population, define the nature and details of people's experience of those issues and generate potential solutions that the people affected by the issues of concern consider as meaningful and effective.

Engaging a "Community of Shared Concern" in a creative process serves to explore and define the elements and complexities of problems affective people's lives and provides a forum to resolve those problems. The process identifies and dramatizes what participants are concerned about, representing an immediate and valuable exploration of their qualitative experience. Performances are presented before a live audience with an expectation that audience members will stop the performance and act out potential solutions to the problems in each scene. This creates a brainstorming opportunity for members of the community to resolve issues. Recording the entire process provides data regarding what matters and what the local population believes will work to resolve it. Taking part as a performer or being part of the audience are transformative experiences for those involved as performers and audience members alike as well as creating a unique form of qualitative research.
Performative research is an innovative means of engaging people in a qualitative research process with the potential to initiate and support a process of change. Participants in the presentation will learn the processes of: • Effectively engaging a target population • Supporting the target population in defining issues • Creating a performance that illustrates those issues • Brainstorming potential solutions to the issues • Evaluating the effectiveness of the solutions. The presentation will present an outline of how Performative Research works and engage participants in an example of the process to illustrate how it can be used.

5174

The Methodological Importance of Rural and Remote Health Research

Laurie Goldsmith, *Faculty of Health Sciences, Simon Fraser University*

Objectives: There are multiple important service delivery and social justice reasons to do rural and remote health research. There are also important independent methodological reasons to do rural and remote health research. Too often the methodological reasons are not acknowledged or used to argue for increased research attention and research funds in rural and remote health. This presentation will lay out the three major independent methodological reasons for doing rural and remote health research and give examples from published research.
Discussion: The first major independent methodological reason is that the rural and remote experience of delivering and receiving health care and running a functioning health care system illustrates important information about variation in the health care system. The majority of health research — even many forms of qualitative research — are focused at some point at capturing variation in health care delivery, even if the study is limited to particular forms of health care delivery or particular populations. It is in capturing multiple forms of variation that both the health research and health delivery communities harness explanatory power and are ultimately better able to make recommendations for improved health care delivery. The second methodological reason is that the small areas represented in rural and remote health research can allow for more easily highlighting key differences in a particular form of health care delivery. Focusing (at least part of) health research on a small area more easily illustrates where our assumptions about health care system functioning break down. The third methodological reason is that rural and remote health care delivery exemplifies nimble and community-sensitive forms as well as non-nimble and non-community-sensitive forms of health care delivery. Learning from both approaches can be used to effectively generalize to health care delivery in other communities, of any size, when the appropriate parameters for enabling generalizing are identified.
Conclusions: Strong ways exist for arguing for the methodological opportunities inherent in rural and remote health research. Researchers and decision makers could use these to improve their advocacy for rural and remote health research.

5074

Implementation of Best Practice Guidelines: A Review of the Literature

Alex Fraess-Phillips, *Graduate Student, School of Health Sciences, University of Northern British Columbia;* **Candice Manahan,** *Regional Manager, Decision Support Tools, Northern Health*

Objectives: Northern Health has identified using best practice guidelines (BPGs) as integral to patient safety and delivering high quality care, especially in rural practice where health care providers can feel geographically isolated. However, communicating and implementing BPGs across the Northern Health region has been challenging.

It has been suggested that only two-thirds of healthcare practitioners follow BPGs, although BPGs represent the latest advances in patient care. Northern Health partnered with UNBC to explore options for BPG implementation across the Northern Health region that would facilitate the use of BPGs amongst staff.
Discussion: Major databases were searched for original research and systematic reviews concerning BPG implementation. A total of 26 relevant articles were then synthesized and related to BPG implementation in rural service areas. The results of the literature search identified that the most effective implementation strategies fall under five categories: education, opinion leaders, reminders, audit & feedback, and coercion. Education, reminders, and the use of opinion leaders were identified as the most effective implementation methods for increasing the use of BPGs. Audit and feedback, as well as coercion were identified as the least effective at improving the use of BPGs; however, audit and feedback and coercion were both identified as successful strategies when the BPGs are already in use, but staff usage of the BPG is low. Throughout the literature, combining individual strategies has had a synergistic effect.
Specific strategies are also more adept at overcoming the specific barriers to implementation: limited access, awareness, and perceived importance of BPGs. As such, multifaceted strategies must be based on the merits of individual strategies as well as the possible interactions between strategies.
Conclusion: As specific barriers to implementation differ across rural centers, the individual needs of centers must be considered. This could mean using different implementation strategies across the Northern Health service area in different circumstances. This presentation will discuss how the literature review findings inform BPG implementation at Northern Health and how improving access to BPGs can support rural health care providers in the region.

5169

Realist Knowledge Synthesis: Theoretical and Practical Approaches

Davina Banner, *School of Nursing, University of Northern British Columbia;* **Alex Clark,** *Faculty of Nursing, University of Alberta*

Objectives: Knowledge syntheses are gaining increasing popularity as healthcare organizations strive to identify and integrate research evidence to support best clinical practices and improve health outcomes. Knowledge syntheses reviews seek to examine the broad landscape of research literature, examine the quality and scope of the evidence, and identify areas for the rapid integration and translation of knowledge. Typically, they are undertaken to illuminate knowledge in a given area, identify gaps or methodological pitfalls in the existing research, and to support clinical decision-making within complex health systems. In this presentation, we will outline the theoretical and practical approaches to realist knowledge syntheses and identify how such reviews can aid the contextualization of research evidence for use in rural settings in Canada.
Discussion: Knowledge syntheses may take the form of a systematic review or may be guided by other approaches, such as realist approaches and meta-analysis, depending on the type of evidence and topic. In this presentation, we will focus on realist approaches to knowledge synthesis. Realist approaches seek to understand mechanisms of a given intervention, policy or program, with an emphasis on 'what works well, why, when, and where'. This approach offers many benefits for contemporary health care organizations, moving reviews of evidence beyond pure description, to identify the scope of the evidence and provide practical insights into the application and integration of knowledge within a given context.
This can be important when examining the healthcare evidence within the context of rural Canada, within which distinct differences in geography, health services and population health needs must be considered. In this presentation we will identify key theoretical and methodological approaches underpinning realist knowledge syntheses and will discuss the key stages of a realist synthesis, including engaging key stakeholders, developing search strategies, selecting studies, extracting data, synthesizing the findings, rigour, and knowledge translation. We will draw upon our knowledge synthesis projects in heart failure and secondary prevention interventions as examples.
Conclusions: Realist knowledge syntheses can support the evaluation and translation of evidence to support the development of rural health services. Such reviews can be particularly useful for exploring practice or research initiatives in rural communities, as the contextual focus upon mechanisms and processes can yield relevant and useful insights.

5096

Appropriate Provision of Anti-D Prophylaxis to Rh-Negative Pregnant Women: A Scoping Review

Trina Fyfe, *Northern Medical Program, University of Northern British Columbia;* **Dr. Daniel Crompton,** *Northern Health;* **Dr. Brian Galliford,** *Northern Health;* **Rose Perrin,** *Northern Health;* **Jane Ritchey,** *Northern Health*

Introduction: In 2012, two studies emerged that questioned whether Rh-negative pregnant women are receiving prophylaxis in appropriate clinical situations within emergency departments. The purpose of this presentation is to share the methods and results of a scoping review on healthcare provider provision of anti-D prophylaxis to Rh-negative pregnant women in appropriate clinical situations. To date, a knowledge synthesis has not been conducted on this topic.

Methods: An interdisciplinary team of knowledge users and librarian came together to conduct a knowledge synthesis on this topic to inform current practice, policy, education and research. A scoping review was chosen because it is an exploratory process, enabling the team to dig into the literature and determine the depth, range and nature of the research that exists. The review followed one of the Canadian Institute for Health Research's preferred scoping review frameworks: identify the research question, identify relevant studies, select the studies, chart the data, summarize and report the results, and consult with knowledge users.

The following databases were searched: EBM Reviews, Medline OvidSP, CINAHL, and Web of Science. In addition to the search, grey literature and hand searching of article references were explored.

Results: The search yielded 301 articles. Screening was conducted to remove articles that were deemed irrelevant. After screening 35 articles remained for review. Two team members reviewed each article using a detailed data collection sheet. A third reviewer will be utilized if discrepancies amongst reviewers exist.

The analysis will involve a descriptive summary that will extract bibliographic information, methodology and outcome measures. A thematic analysis will be conducted to identify central themes that emerge from the included literature.

Outcomes: Reviewers are currently reviewing articles for inclusion and exclusion. Based on the findings the team will present implications for practice, policy, education and research in the area of Rh sensitization prevention in Rh-negative pregnant women.

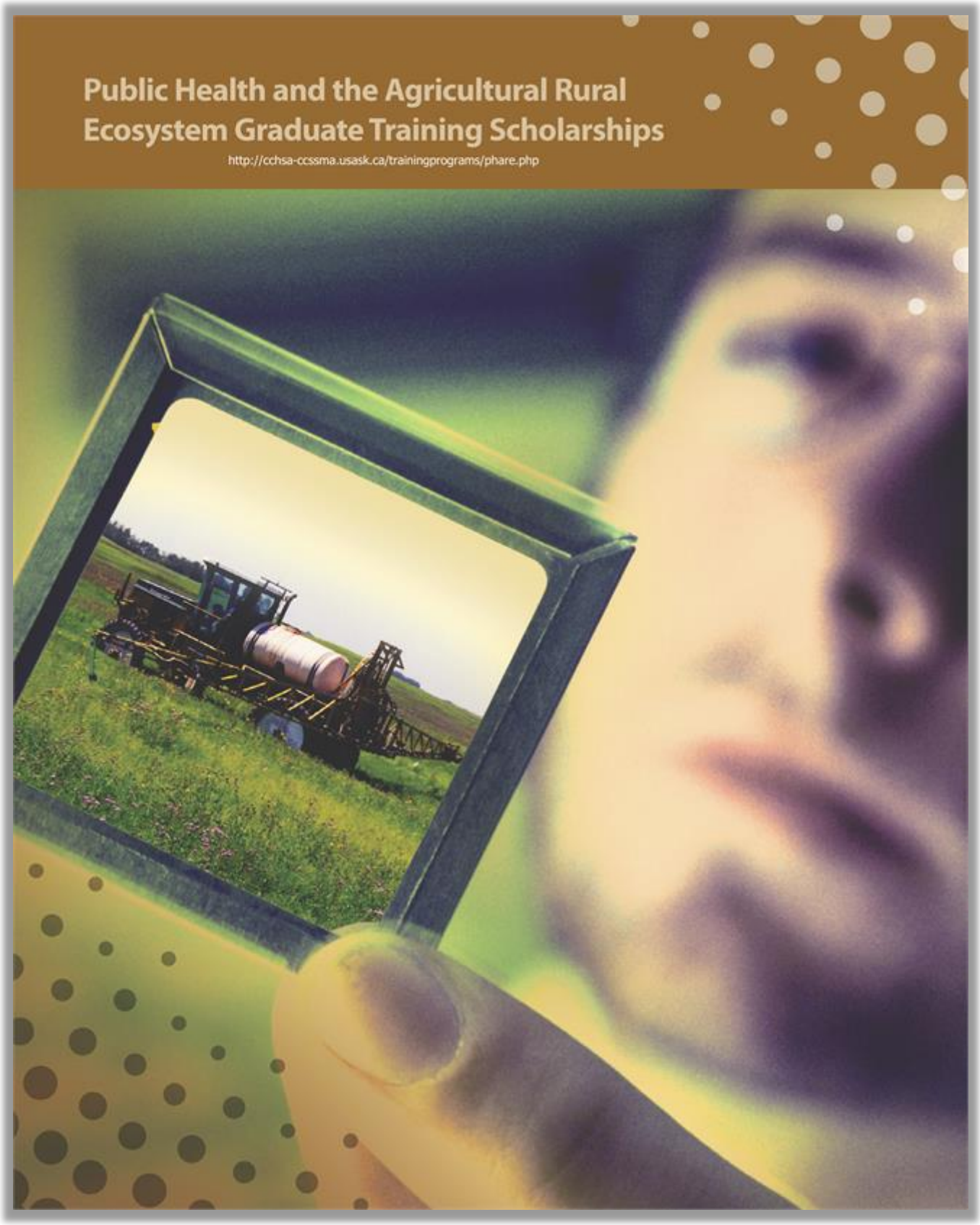
5177

Critical Care Environmental Scan Data Repository

Beth Ann Derksen, *RN, Northern Health;* **Dr. Waqar Haque,** *University of Northern BC;* **Dr. Jan B. Burg,** *Northern Health*

An environmental scan of the critical care resources was undertaken by the Critical Care, Executive and Medical leads to create a framework for quality improvement in a set of common clinical services, provided across Northern Health and across populations. The environmental scan information was collected using a questionnaire template during site visits and electronic follow-up. Emergency department, intensive care/high acuity and trauma program data, service sites, geography and access, human resources and education were the initial priority. This information is presented through an interactive dashboard, accessible to all levels of staff and physicians.

The dashboard and drill-down reports provide instant access to information on availability of critical care resources such as trauma bays, ED stretchers, staff with credentials, specialists, ventilator/respirator capacities, patient transfer capabilities, awareness of protocols, on-site and off-site access to CT/MRI/Radiology/Labs, Patient Transfer Network, unmet staffing needs and usage of facilities by remote First Nations communities. The data warehouse together with a business intelligence layer provides a basis for standardization of services and ongoing development of the Critical Care program in Northern Health.


Public Health and the Agricultural Rural Ecosystem Graduate Training Scholarships
http://cchsa-ccssma.usask.ca/trainingprograms/phare.php

ABSTRACTS / POSTER

Stories of RURAL HEALTH THROUGH Knowledge, Research & Collaborative Action

ABSTRACTS – POSTER PRESENTATIONS

Prince George Civic Centre Room 101 and Foyer

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Healthy Aging in Cuba: A Rural Perspective

Juanita Bacsu, *PHARE, Community Health and Epidemiology, Saskatchewan Population Health and Evaluation Research Unit, University of Saskatchewan, Saskatoon, SK*; **Marc Viger,** *MedWest Medical Clinic, Saskatoon, SK;* **Terry L. Mills,** *Morehouse College, Atlanta, GA;* **Ralph Rivera-Gutierrez,** *Graduate School of Public Health, University of Puerto Rico;* **Toni Mills,** *Senescence Consulting Company, Atlanta, GA;* **Susan Vega,** *Alivio Medical Center, Chicago, IL*

Cubans live long lives and this poster will share healthy aging lessons within a rural context. In 2030, it is anticipated that Cuba will be the oldest nation in Latin America and the Caribbean. Cuba has faced many challenges but has taken an active role in supporting healthy aging in place.

This presentation will highlight innovative findings on the role of older adult education, community engagement, emergency preparedness, political support and healthcare in promoting rural healthy aging in place. This poster will showcase key findings from the Medical Education in Cooperation with Cuba's (MEDICC) Healthy Aging program held in Cuba in April 2012.

The outcomes of the poster will include: (1) knowledge of Cuba's healthy aging challenges and successful strategies that will be applied within a rural context; 2) knowledge on the role of older adult education, community engagement, emergency preparedness, political support and healthcare in promoting rural healthy aging in place; and 3) knowledge on the benefits of collaborative international learning initiatives to support rural healthy aging.

5176

Evaluation of the Critical Care Response Team at UHNBC

Shirley Barg, *CNE, Northern Health, ICU;* **Cathy Antoniazzi,** *CPL, Northern Health, ICU;* **Cara Mann,** *RN, Northern Health, ICU*

We are presenting the implementation of the Critical Care Outreach Team (CCOT) at University Hospital of Northern British Columbia (UHNBC) and our evidence-informed strategy to evaluate the program. The CCOT program was initiated in June 2012 and evaluation was conducted one year after initiation. Further evaluation will inform us on the effectiveness this program has had on improving the quality of patient care at UHNBC.

Objectives: Medical Emergency Teams have been established in many hospitals worldwide over the last decade in response to the problem of patients who, in retrospect, should not have died during their hospitalization. Three main systemic issues around the deteriorating patient have been identified: failure to plan, failure to rescue, and failure to communicate. We wanted to address these issues in our hospital by implementing the CCOT in order to improve the quality of health care for our patients.

Discussion: The UHNBC critical care team initiated the Critical Care Outreach Team in June 2012. The UHNBC CCOT is a team of clinicians who bring critical care expertise to patients throughout the hospital and who take on the mentorship role with ward staff members. When staff members identify acute deterioration in a patient, a call to the UHNBC CCOT provides access to critical care support at the bedside. Over the first year of implementation, UHNBC CCOT has received 82 CCOT calls and seen every patient discharged from the ICU for a follow-up visit, totaling 445 visits over one year.

Conclusion: Improving the quality of patient care for the patients of UHNBC through the implementation of the UHNBC CCOT has been successful. Through bringing critical care nursing to the bedside, both patients and staff have been supported in providing appropriate, timely, and comprehensive care. The team of experienced nurses, respiratory therapists, and intensivists support the quality care that all staff strive to provide at UHNBC. The team has shown to be essential in assisting acute ill patients and providing timely interventions that have prevented further possibly life threatening deterioration, as well as valuable mentorship.

5166

Near-Infrared Spectroscopy for Northern and Rural Health

Andrea Brutenic Fowler, *School of Health Sciences, College of Arts, Social and Health Sciences, University of Northern BC;* **William J. Tippett,** *School of Health Sciences, College of Arts, Social and Health Sciences, University of Northern BC;* **R. Luke Harris,** *School of Health Sciences, College of Arts, Social and Health Sciences, University of Northern BC*

Background and Rationale: In 2011 our research group hosted a meeting at the University of Northern BC (UNBC) for local, national, and international researchers, practitioners, and decision makers to discuss using near-infrared spectroscopy (NIRS) in northern and rural settings. We subsequently received funding to launch the Northern BC NIRS Laboratory. Prior to establishing this laboratory we have conducted a comprehensive, detailed review of worldwide NIRS applications that may be applicable to northern and rural settings.
Methods: Four separate searches of each of the following databases were performed: Medline Ovid, CINAHL, Cochrane Reviews. Variable NIRS search terms were combined with variable search terms related to a) rural/remote communities, b) telehealth, c) rehabilitation/therapy, d) EEG/EMG. The first two searches yielded no results. The third search yielded >100 articles. The last search yielded <5 articles.
Results: Our preliminary findings indicate that NIRS research exists in pediatrics, neuroscience, neurorehabilitation, physical rehabilitation, psychiatry, exercise physiology, and chronic disease. NIRS has been applied as a diagnostic tool and used during surgery, administration of therapy, and monitoring of outcomes. Widespread application of NIRS can be attributed to its being non-invasive, highly portable, and inexpensive. Furthermore, our findings indicate that NIRS can be used to complement other assessment tools. The subjects among these studies include neonates, children, and adults.
Discussion: Analysis of the studies we reviewed indicates that NIRS can be used in primary, secondary, and tertiary care, contributing to prevention, early diagnosis, and improving post-operative and other treatment outcomes. Consequently, NIRS can be utilized to modify risk factors and prevent co-morbidities. The Northern Health Authority and the Northern BC NIRS Lab at UNBC are in a unique position to develop NIRS applications for health services delivery in northern and rural communities. This will require ongoing research conducted by interdisciplinary teams, to design and promote innovations at the front lines that will improve health outcomes in Northern Health's service delivery areas.

5097

Evolution of a Community-Based Participatory Approach in a Rural and Remote Dementia Care Research Program

Allison Cammer, *PHARE, College of Pharmacy and Nutrition, University of Saskatchewan;* **Debra Morgan,** *CCHSA, University of Saskatchewan;* **Margaret Crossley,** *College of Arts and Science, University of Saskatchewan;* **Norma Stewart,** *College of Nursing, University of Saskatchewan;* **Andrew Kirk,** *College of Medicine, University of Saskatchewan;* **Dorothy Forbes,** *Faculty of Nursing, University of Alberta;* **Carl D'Arcy,** *Applied Research, University of Saskatchewan;* **Vanina Dal Bello-Haas,** *School of Rehab Sciences, McMaster University;* **Lesley McBain,** *First Nations University of Canada;* **Megan O'Connell,** *College of Arts and Science, University of Saskatchewan;* **Joanne Bracken,** *Alzheimer Society of Saskatchewan;* **Julie Kosteniuk,** *CCHSA, University of Saskatchewan*

Objective: There is growing recognition of the importance of long-term researcher-knowledge user exchange processes in facilitating the use of research in decision-making. We describe the trajectory of our team's integrated knowledge exchange approaches over the last 15 years of health service research, including benefits, challenges, and lessons learned.
Approach: Since 1997 our team has led a community-based participatory research program aimed at improving health service delivery for persons with dementia and their caregivers in rural and remote settings. A multi-stage community-based approach was used to plan a research program in rural dementia care (consultations with health region boards, workshops to identify research priorities, pilot study), forming the foundation of the team's subsequent research program. Over time, decision-maker and other community partner involvement has become more formalized, with two-way engagement across all stages of the research process.

Results: Ongoing engagement between researchers and community is required given the ever-changing nature of health services. Involving decision-makers and other community partners in the full research process has improved the quality, relevance, application, and sustainability of our findings. An annual knowledge exchange meeting with our Decision-Maker Advisory Council builds relationships and research capacity. These evident benefits of decision-maker involvement have supported the team's evolution from a relatively traditional focus to the fully integrated approach that shapes all aspects of our research.
Conclusions: Although developing and sustaining decision-maker and other community-partner and knowledge user involvement is resource and time-intensive, our experience shows that this approach is highly suited to health services research, in general, and most likely to lead to sustained improvements in dementia care in rural and remote settings, more specifically.

5072

The Social Uses of Alcohol in Saint-Éphrem-de-Beauce, QC: An Ethnography Study

Paulo Rogers da Silva Ferreira, *PHARE, Department of Anthropology, Université Laval*

Research Objectives: Our investigation tools include a diagnostic instrument related to the use of alcohol in Saint-Éphrem village, the rural region of Beauce, Quebec. In this study we will include the following objectives: 1) A better understanding of the population being studied, their traditions and rituals as they relate to the use of alcohol. 2) To identify the practices and myths over alcohol and rural health and how they are articulated and presented in professional journals and other sources.
3) To analyze the anthropological reasons for the alcohol imaginary in Beauce, QC. 4. An ethnography of a small community understudied.
Methods: The collection of data will be obtained using an ethnographic methodology. A) Observation in specific situations B) Qualitative research including unstructured and semi-structured interviews C) Family Histories Results In the summer and fall of 2013, I will be living in St. Éphrem-de-Beauce, QC, 24/7 from July 2013 to January 2014, which is the minimum length of stay required to obtain quality data from an ethnographic prospective. For PhD studies in anthropology, one year is the usual length of fieldwork among "native" people.
Conclusions: My findings will be presented in the thesis as an anthropological study with a correlation to international literature and previous studies conducted by Quebec experts in the field of rural anthropology and the anthropology of alcohol.

5123

Portrait of Trauma Care in Rural Areas

Renée Dallaire, *PHARE, Université Laval and CHAU Hôtel-Dieu-de-Lévis, Lévis, Quebec;* **Richard Fleet,** *Université Laval and CHAU Hôtel-Dieu-de-Lévis, Lévis, Quebec*

Introduction: Despite the major advances in trauma care over the past few decades, there is still significant inequality in access to such care between urban and rural populations. As a result, 22% of the Canadian population cannot get to a trauma centre within the "golden hour" for trauma care, i.e., within the first 60 minutes following an accident. This situation puts increased stress on the interfacility transfer system, including air ambulance transport, thereby increasing the victims' risk of complications or death. Given this context, the objective of our study is to provide a portrait of trauma care in rural areas.
Objective: Three specific objectives will be pursued in this study: 1) to describe the characteristics of trauma patients treated in rural emergency departments; 2) to produce a picture of the prehospital and trauma care services provided for patients admitted to Quebec's rural emergency departments; 3) to evaluate the characteristics of trauma patients and the trauma care continuum in light of the hospital services provided in rural emergency departments.
Methodology: We will use data gathered in the project entitled "Portrait des unités d'urgence rurales au Québec" (Portrait of Quebec's Rural Emergency Departments), which concerns 26 rural Quebec hospitals, and data from the Quebec Trauma Registry. These two databases contain a substantial amount of information on trauma victims, hospital and prehospital services (available beds, imaging and lab tests), staff qualifications, and interfacility transfers.

Descriptive statistics and linear and logistic regression models will be developed to determine if the descriptors of rural emergency departments are associated with the characteristics of patients admitted for trauma and with the prehospital and trauma care variables.
Results and prospects: This study will yield a clearer picture of the services provided for trauma victims in Quebec's rural emergency departments and will help determine if these emergency departments and the organization of the trauma care system adequately meet the needs of these populations.

5164

Northern Health's Approach to Partnering with Local Governments

Sabrina Dosanjh, *Lead, Healthy Community Development, Local Governments, Northern Health;* **Theresa Healy,** *Lead, Healthy Community Development, Aboriginal Health, Northern Health*

Northern Health has developed an approach to actively engage and build partnerships with local governments in order to collaboratively address local upstream risk factors that lead to the development of chronic disease and injuries. The goal of this approach is to partner with local governments to build healthier communities by developing initiatives that address upstream risk factors. With the disparities in health status in the north, Northern Health recognizes that improving the health of communities requires moving from silos to systemic partnerships with stakeholders. These partnerships allow stakeholders to share resources and expertise, which results in a collaborative approach to improving population health. Local governments have been identified as essential partners in such an approach and Northern Health has been proactive to partner with local governments towards the common goal of building healthier communities.
Northern Health's approach to partnering with local governments is an iterative process that has been flexible and adaptable. It recognizes that each community is unique; therefore the approach taken with interacting and collaborating with communities must be adapted to each community's needs and dynamics. However, key elements remain consistent from community to community. These key elements include working with local governments and community partners to identify risk factors that contribute to the health disparities in the north and the upstream work that can target these risk factors, where both elements are supported by Northern Health's position papers. Northern Health has also sought to facilitate partnerships with external agencies, such as BC Healthy Communities, to support building capacity with local governments.
While challenges have been faced, such as maintaining engagement and sustainability of upstream work, Northern Health's approach to partnering with local governments has supported the development of strong relationships between Northern Health, local governments and community partners. This approach has also supported community ownership of building healthier communities, as well as the establishment of 13 healthy community committees and unique initiatives across the north.

5103

Evaluation of a Reminiscence Intervention via Telehealth Videoconferencing for Caregivers of Persons with Dementia

Joe Enright, *PHARE, Department of Psychology, College of Graduate Studies and Research, University of Saskatchewan;* **Megan O'Connell,** *Department of Psychology, College of Graduate Studies and Research, University of Saskatchewan*

Objective: Informal caregivers of persons with dementia experience significant difficulties of "caregiver burden", which has been associated with the quality of the caregiver and care-recipient relationship. Reminiscence Therapy (RT) is an intervention that may help improve the quality of this relationship and mitigate caregiver difficulties. In rural and remote communities, the high proportion of older-adults with limited access to health services makes dementia care a challenge. This project will evaluate the effectiveness of an RT intervention and assess the use of videoconferencing as an accessible method of service delivery. The first objective of the project is to investigate the benefits of an RT intervention for caregivers of persons with dementia. A second objective is to contribute to the delivery of health services to older adults living in rural and remote areas by assessing RT delivered via videoconferencing.

Methods: PHASE-1: Sixty-four caregiver/person with dementia dyads will be recruited to participate from the University of Saskatchewan Rural and Remote Memory Clinic. Participant dyads will be randomly assigned to either the experimental group receiving in-person RT or to a wait-list control group. All participants assigned to the wait-list control group will receive treatment as usual. The RT intervention will be based on an empirically supported autobiographical memory activity, utilizing themes and supplementary activities from the Remembering Yesterday Caring Today program of RT. Measures of relationship quality, caregiver burden, and other outcome measures will be administered at pre, post, and follow-up.
PHASE-2: Upon completion of Phase-1, dyads in the control group will receive the same RT intervention and measures, but the intervention will be delivered via videoconferencing over Telehealth Saskatchewan.
Relevance: This project will provide evidence of RT efficacy for improving caregiver/care-recipient relationships and reducing perceived burden of caring for persons with dementia. Further, it will add support for the use of videoconferencing technology in the development of accessible services for those with limited access, especially in rural and remote areas.

5137

Men's Health – Injury Prevention Champions

Denise Foucher, *Injury Prevention Coordinator, Northern Health;* **Brandon Grant,** *Men's Health Coordinator, Northern Health;* **Lynette Hewitt,** *Injury Prevention Coordinator, Northern Health;* **Tanya Schilling,** *Population Health Team Lead, Northern Health*

Objectives: This poster will share the story of Northern Health's innovative CHAMPIONS initiative, designed to increase our capacity to promote men's health and injury prevention, assisting rural and remote communities to improve residents' health where they live, work, learn and play.
Discussion: Northern Health provides services to 300,000 people in small urban, rural and remote communities. As with many other northern and largely rural regions, Northern Health experiences rates of injury and chronic illnesses among men that are greater than provincial and national averages. Men in northern British Columbia experience higher rates of alcohol and tobacco-related deaths, chronic disease, sleep-related disorders, occupational deaths and injuries, and road traffic injuries in comparison to their southern counterparts. While injuries constitute the fifth leading cause of death in Canada and BC, injuries represent the third leading cause of death and disability across Northern Health and are the number one cause of death among residents aged 1-44. Given Northern Health's expansive geography, the overlap of multiple factors affecting men's health and injury rates, and the limited capacity of the Men's Health and Injury Prevention programs in addressing community-specific needs, a partnership between these two programs was a natural fit. Research supports utilizing community health champions to supplement the work of health care teams by implementing community-based health promotion programs. Through the CHAMPIONS initiative, engaged and passionate Northern Health staff self-identified as having an interest in working on community-based men's health promotion or injury prevention initiatives. This year's CHAMPIONS live in various communities across Northern Health and were recruited, trained and offered ongoing support to work on a project of their choice.
Conclusion The Men's Health – Injury Prevention CHAMPIONS initiative has been strongly supported by all levels of Northern Health and aligns well with the organization's Strategic Plan to address upstream risk factors through a population health approach, thereby supporting healthier populations and communities.

5077

Healthy Start: Evaluation of a Physical Activity and Healthy Eating Intervention in Rural Childcare Centres

Amanda Froehlich Chow, *PHARE, Department of Community Health and Epidemiology, University of Saskatchewan;* **Anne Leis,** *Department of Community Health and Epidemiology, University of Saskatchewan;* **Louise Humbert,** *College of Kinesiology, University of Saskatchewan;* **Nazeem Muhajarine,** *Department of Community Health and Epidemiology, University of Saskatchewan*

Background: Research suggests that it is important to establish regular physical activity and healthy eating patterns during the early years (0-5 years); as healthy behaviours during this stage of life support growth and development, laying the foundation for lifelong healthy living patterns.

Despite the benefits of these, research indicates that children in Canada are not meeting the daily recommended physical activity guidelines for early years. Moreover, their diets are lacking in fruits and vegetables and high in processed foods. As many early years' children spend a large part of their day in childcare centres, educators can have a large influence on their physical activity and healthy eating behaviours. Furthermore, research suggests that rural educators are influenced by unique factors when attempting to provide healthy opportunities for children. In order to improve healthy behaviours among rural early year's children, a physical activity and healthy eating intervention (Healthy Start) was implemented in rural childcare centres throughout Saskatchewan.
Purpose: The purpose of this study was to evaluate a multimodal physical activity and healthy eating intervention in Saskatchewan rural childcare centres.
Methods: A population health controlled intervention study using a wait list control design (48 weeks delayed-intervention) was used to evaluate the impact of the rural intervention. Mixed methods were employed to determine detailed information about the effectiveness of the intervention.
Results: Overall, the intervention was effective in supporting educators to increase physical activity and healthy eating opportunities they provide to rural early years children. Increase in children's physical activity levels and healthy eating behaviours were reported among the intervention group.
Conclusion: To our knowledge this is the first study to use a wait-list comparison design to conduct a yearlong evaluation of a multi-pronged intervention targeting physical activity and healthy eating behaviours among rural early years children. The lessons learned in this study can be used to improve the Healthy Start intervention so its implementation can be effectively expanded to childcare centres within and outside of Saskatchewan, in turn, supporting the healthy development of early years children in the province and beyond.

5121

Place as a Determinant of Health for Rural Senior Women in Southwestern Saskatchewan

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This study will explore how living in a rural place impacts the health and wellbeing of senior women in southwestern Saskatchewan, Canada. Indepth interviews will be conducted with farm women who experienced stress during the 'farm crisis' of the 1980's. The longitudinal perspective of the research will also examine stress over the life course as a determinant of health.
The qualitative methodology will use approaches from ethnography and grounded theory. Participants reside within the boundaries of Cypress Regional Health Authority (CHRA), a large, sparsely populated, rural region in the center of the Canadian prairie. Compared with the rest of Saskatchewan, CHRA has a larger proportion of seniors and this proportion is predicted to increase. Of those above 70 years of age, females outnumber males. For rural senior women in southwestern Saskatchewan, there is the potential to experience vulnerability because of a combination of age, gender, and geographical location. In the face of depopulation, loss of young people, and service withdrawal, there are concerns about sustaining rural community. The issues surrounding daily living in a rural place and sustaining social support systems are as much of a concern as physical health. There is a need to work with communities to develop innovative ways to deliver health and social services over vast distances to sparsely populated rural areas.
This research will be begin to address that need. The perspectives and experiences of rural senior women will provide input into policy, programs and services to support healthy aging. The findings will benefit all human service sectors and will provide a foundation for further community-based research in rural areas.

5102

Economic Empowerment of Women in Himalayan Mountain Villages: Impact on Mental Health

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Objectives: Few data is available about the impact of earning cash income on mental health in rural population of Pakistan. This study was conducted to determine the impact of earning cash income among women on depression and suicidal ideation.

Methods: This was a cross-sectional study conducted in 2011. Study women aged between 18 and 64 years were selected from a random sample of 1000 households in 18 villages in Ghizar, Gilgit Baltistan region of Pakistan. Socio-demographic, lifestyle and reproductive history data were obtained through structured interviews. Self-reported symptoms of depression and suicidal ideation were obtained using the Aga Khan University anxiety and depression (AKUAD) scale.
Results: Out of 978 women 379 (38.7%, 95%CI 35.6, 41.9) had depression. Eighteen percent of the women reported suicidal ideation. The prevalence of depression was low 22.9% among those earned monthly cash income compared to their counterparts (40.6%) who did not earn cash income. Similarly the prevalence of suicidal ideation was 9.2% among monthly cash earners compared to women who did not earn monthly cash income (18.9%). Women who did not earn cash income were more likely to have depression (adjusted odds ratio (AOR) 1.71, 95%CI 1.01, 3.06) after adjustment for age, marital status, number of children, cigarette smoking. Women who did not earn cash income were more likely to report suicidal ideation (AOR=2.73, 95%CI 1.16,, 7.01) after adjustment for age, marital status, number of children, cigarette smoking.
Conclusion: Lack of economic empowerment is significantly correlated with poor mental health with high prevalence of depression and suicidal ideation. Increasing economic empowerment through creation of job opportunities for women will help reduce mental stress.

5161

Improving the Cardiac Patients' Experience in Northern BC: Quality Improvement Meets Research . . . A Match Made in Heaven

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Objectives: A quality improvement project was undertaken at the University Hospital of Northern BC (UHNBC) to improve the experience of cardiac patients awaiting transfer to a Catheterization lab in a different part of the province. The current process had several challenges including lack of comprehensive and consistent education regarding the potential procedure. There was miscommunication and inefficiencies between staff at UHNBC, the receiving cath lab, and BC Ambulance creating additional work for all involved. Patient wait times for transfer were potentially exacerbated by lack of coordination and preparation at UHNBC and between sites.
The objective of this project would be to bolster the outcomes of the quality improvement project with a robust literature review examining the areas of inequities in waiting for transfer from rural regions to urban centres, and the impact on patient anxiety and confidence from confused inter-facility transfer practices.
Discussion: The current situation was such that patients were prepared in an ad-hoc manner depending on which care provider was present on the floor at the time, and which resources that particular individual was sharing with patients. Before the initiative began, Northern Health patients were receiving materials from Alberta Health, St-Paul's Hospital, and the Mayo clinic inconsistently. Conversations with staff indicated that they felt such practices was misrepresentative of their abilities as care providers for cardiac patients, and contributed to a lack of confidence on the part of the patient towards the nursing staff. This contributed to increased anxiety experienced by waiting patients. A patient Information package was created and interfacility communication tools were created to provide consistency in patient education and a more seamless transfer.
Conclusion: The potential to apply these findings more broadly is evident. Staff had long recognized that there was a need to improve the experience for cardiac patients at UHNBC. Providing consistent, high-quality patient information on angiogram and angioplasty was a high priority for care providers in this example of Rural-Urban Interface. Additional research would facilitate the implementation with best-practice literature.

5115

Developing a Framework to Support Rural Healthy Aging

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Defining and measuring the effects of population health interventions on healthy aging in place for rural seniors has been given little attention in the research literature. While there are several examples of healthy aging frameworks, these do not necessarily apply to the rural context.

Findings from the study Healthy Aging in Place: Improving Rural and Northern Seniors' Health through Policy and Community Level Interventions have supported the development of an initial Rural Healthy Aging Assessment Framework. The framework identifies and summarizes the key themes that rural seniors highlighted as important to supporting their ability to successfully age in their communities.

The methodology for review and validation of the framework included a comprehensive literature review, focus groups with seniors in two rural Saskatchewan communities as well as service providers and policy stakeholders and interviews with national and international experts in the field of rural healthy aging.

The initial framework incorporates five domains and their associated dimensions. Independence refers to the ability to live self-sufficiently and have freedom in ones' life. Social and Community Interaction is defined as both the ability and opportunities to interact with family and friends and be involved, engaged and participate in a range of personal and community activities. Supportive Environment includes both physical and social aspects that provide the setting for supporting aging in place. Mobility refers to the ability to physically move and be mobile within the home and community. Mental Health is defined by seniors as activities and supports that facilitate both emotional well being and keeping the mind sharp.

5160

Access to Pci in a Rural-Urban Setting in Northern British Columbia: Examining the Impact of Time Delay Post-Thrombolysis on Patient Outcomes and Whether 'The Sickest Go The Quickest'

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Canada is known by many around the world for the health care system and related services that it provides its citizens. While universal access to health services is a core and underlying value of the system, the fact remains that not all Canadians are true recipients of universal access to these services. Canada's rural and remote regions often lack the ability to perform higher-level services and patients needing more advanced health care services are often faced with the prospect of being transferred to larger centres to receive care.

This research will provide insight into access to percutaneous coronary intervention, a procedure for patients with acute coronary syndrome. Patients in Northern BC are requiring the procedure are transferred to larger centres throughout the Lower Mainland. A retrospective medical records review is used to determine the impact of time delay post-thrombolysis on patient outcomes and whether patients are transferred according to their risk status. The results of this research will help support decision makers in making informed decisions to maximize patient outcomes and shape the future in cardiac services for northern BC patients. In particular, the research will answer the two following questions; 1) To determine whether longer door-to-balloon times (>120mins) are associated with higher adverse outcomes (death, re-infarction, heart failure, or stroke) in both the STEMI and UA/NSTEMI groups and 2) To determine whether the highest-risk patients, risk stratified using the GRACE risk score, receive PCI first in both the STEMI and UA/NSTEMI groups. Statistical analysis including unpaired T-tests, logistical regression through SPSS 20.0 and risk stratification through the GRACE risk calculator will be performed.

Research is funded by a UNBC Research Project Award. It is anticipated that preliminary findings will be available for dissemination by the end of October 2013.

5112

Exploring the Impact of an Inpatient Diabetes Educator on Diabetic Outcomes in Hospital: A Review of Best Evidence

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Objectives: As participants in a Nurse-Led Literature Review challenge our team explored the current best evidence around the potential impact a diabetes educator can have on diabetic patient outcomes while a client is in hospital. This review was undertaken to improve the continuity of diabetes care and patient satisfaction at the University Hospital of Northern British Columbia (UHNBC). UHNBC is the largest acute care facility within Northern BC, located in Prince George BC. This urban hospital serves the acute care needs of the city as well as patients transferred from smaller facilities.
Discussion: Six studies were included in the literature review representing research from North America and the United Kingdom. All of the studies included in the review revealed that inpatient education, whether provided by a team or an individual, had the potential to decrease average length of stay for hospitalized diabetic patients. In particular, the literature supported that education provided by a multi-disciplinary team, in these studies, resulted in the most significant reduction in average length of stay. Other findings highlighted in the literature were the impact of inpatient education on patient satisfaction, staff education, readmission rates and self-management.
Conclusion: It is anticipated that our literature review findings will be of significance to other care providers in rural Northern locations. Our exploration of an inpatient intervention reveals how multi-disciplinary teams can contribute to quality care as measured by patient outcomes and impact on the health organization.

5134

The Measurement of Quality Indicators of Care in Rural Emergency Departments in Quebec: An Innovative and Useful Tool to Generate Quality Care

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Introduction: In Canada and Quebec, 20% of the population lives in rural areas. However, in order to better control the costs associated with health region, several provinces have regionalized services and thus closed hospitals in region. Recently, quality indicators of care (QIC) were developed by a multidisciplinary group of Canadian experts to standardize access to quality care and help decision-makers base their choices on the allocation of health care in the region. However, no studies have been published to date on the practical application of these quality indicators.
Objectives: This study therefore aims to develop the first research to study the feasibility of measuring the QIC in the rural emergency departments in Quebec and standardize a methodology for collecting and evaluating.
Methods: This study is descriptive and has a mixed methodology. Data collection will be conducted with professionals specialized in the field of medical records of 19 emergency departments included in the study, according to three stages: the collection of indicators in hospitals, an online Survey, Survey Monkey, on barriers and facilitators associated with this collection, and focus groups to develop a standardized procedure.
Expected outcomes: This is a groundbreaking study, generating a practical and reproducible tool whose use may be extended to the national and even international. This tool will be useful to health professionals and the general population, as it will highlight the level of emergency departments in Quebec. In addition, it will serve decision makers who will have objective information to improve the distribution and allocation of medical services in the region.

5116

Examining Best Practices in Clinical Rehabilitation Interventions for Patients with Low Back Disorders in Rural or Remote Settings Using E-Health Technologies: A Systematic Review

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Background: Low back disorders are prevalent in rural and remote communities; however, access to rehabilitation services in many rural communities is limited. The use of e-health technologies may be a viable option to provide more equitable access to rehabilitation services.
Objectives: 1. To identify best practice in the use of e-health technologies for rehabilitation of rural and remote people with low back disorders (LBD). 2. To identify barriers and challenges with the use of e-health technologies for care of rural and remote patients with LBD. 3. To determine the impact of use of e-health technologies on health and process/system outcomes.
Methods: A systematic search assisted by a research librarian was completed for 4 databases. Screening and selection of articles will focus on: adults with LBD >3 months, and e-health interventions delivering physical therapy or rehabilitation care compared to usual in-person care (primary practitioner). Included articles will be randomized controlled trials, systematic reviews, meta-analyses and case controls from 2000 and later. Outcomes investigated will include health outcomes (quality of life, pain, function and satisfaction), process (costs and feasibility) and systems outcomes (wait times). Two independent reviewers will screen articles. RevMan1 will be used to analyze health, process and systems outcomes.
Results: Our preliminary literature search revealed 5454 articles: 1959 from Medline, 1617 from CINAHL, 1432 from EMBASE and 446 from PsychInfo. Our screening, data extraction and analysis process will take place in the coming months.
Conclusions: This systematic review will help inform whether e-health technologies improve the health, process and systems outcomes of rural and remote patients and health care teams managing LBD. It will provide evidence of best practice strategies for use of e-health technologies in rural and remote regions. It will also identify barriers and facilitators of e-health technologies. Information on emerging models of care for rural and remote health care teams may be provided.

5139

Stories Of How: Processes of Transforming Primary Health Care in a Rural and Northern Health Region

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Objectives: This research aims to understand how networks of partners at community and regional levels can be engaged to improve Primary Health Care (PHC) services and structures across the Northern Health Authority (NHA). A multiple case study approach examines the whole system transformation taking place at the NHA regional level and within seven northern British Columbia communities over a four-year period (2011-2015). The objective of this presentation is to share the unfolding processes and changes from stories of experiences, challenges and changes arising from two years of interviews with community leaders, physicians and health authority staff.
Discussion: The stories of 'how' PHC system transformation is being undertaken highlight our preliminary themes of creating space for taking risks, engaging in conversations and decision-making in new ways, mobilizing local innovations within the parameters of the cohesive regional direction, and acknowledging and working within the complexities and uncertainties/discomfort associated with change itself.
Conclusions: The seven cases are ideal for understanding how NH undertakes system-wide change while adapting its relationship to individual community-based initiatives in ways that accommodate contextual differences. Preliminary findings provide an opportunity to learn how partnerships may contribute to health system changes, how communities can be engaged in the process, and how health services and structures can be re-aligned to better serve the needs of the population.

5158

Needs Assessment for TB and HIV/AIDS Co-infection Control Program in Saskatchewan

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Current State of Knowledge: The complex relationship between HIV and TB infections has led to a synergistic increase in their prevalence, morbidity, and mortality. Worldwide a third of all people living with HIV are latently infected with Mycobacterium Tuberculosis making them 24-34 times more likely to develop active TB disease than people who are HIV negative (World Health Organization 2004). Despite being preventable and curable, TB is a major cause of mortality among people living with HIV. The occurrence of both infections in any community is therefore a great public health concern. There is a lack of reliable data in Canada and Saskatchewan province on TB/HIV co-infection despite close links between these two pathogens. This may be as a result of lack of concurrent surveillance for the two diseases. The World Health Organization (WHO) has estimated HIV prevalence among adult incident TB cases in Canada in 2004 to be 8.7%. Corbett et al (2003) estimated that 10% to 19% of adult TB cases in Canada are attributed to HIV. Saskatchewan has seen a substantial increase in new cases of HIV since 2003 and as of 2010 has the highest rates in Canada at twice the national average (Public Health Agency of Canada [PHAC], HIV and AIDS in Canada; Surveillance Report, December 31, 2008). Also The rate of TB in the province of Saskatchewan is consistently and proportionately higher than the average national rate (Public Health Agency Canada 2003). In Saskatchewan, HIV and Tuberculosis control run a separate control program, but the WHO in 2004 advocated establishing and strengthening mechanisms for integrated delivery of TB and HIV Service that is capable of reducing the morbidity and mortality of both infections.

5151

Agricultural Exposure and Asthma Severity among Children in Saskatchewan

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The prevalence and severity of asthma is increasing. While the reasons are unknown, there are several theories including urban living, lifestyle changes, and higher exposure to environmental agents. Despite the increasing prevalence, a lower prevalence of asthma has been reported among rural children compared to urban children. Farming exposures has been suggested to explain this association. This implies that environmental differences between urban and rural areas could explain the differences in asthma prevalence. However, recent evidence suggests that there is an increased risk of respiratory symptoms and poor lung health outcomes among rural children who already have asthma. These worse outcomes may be associated with: 1) agricultural exposures such as grain dust, handling of hay and fodder, endotoxin and pesticides; 2) allergens such as house-dust mites, mold, wheat and grasses; 3) different management strategies. Due to the increasingly high burden of asthma in children, it is therefore important to accurately identify possible risk factors related to asthma phenotype and asthma severity.

The purpose of this study is to investigate agricultural exposures and diagnostic patterns in relation to asthma severity and phenotypic expression among children in Saskatchewan. The study will specifically answer the following questions: 1) are there differences in asthma diagnostic patterns between rural and urban children? 2) are there variations in asthma phenotypes between rural and urban children and do agricultural exposures contribute to these differences? 3) are there variations in asthma severity between rural and urban children and do agricultural exposures contribute to these differences? Data collection for the study will include an asthma validation phase (Phase I), and an objective environmental and biological assessment phase (Phase II).

Results from the study will help determine if there are differences in asthma phenotypic expression and asthma severity between urban and rural settings and identify factors that contribute to these differences. By identifying which exposures play a role in the associations, the results will also help to identify which groups of children are at increased risk of worse asthma and will be a powerful tool for public health planning in the development of asthma prevention and management programs.

5142

What is the Story in the North about Infant Immunization?

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Objective: Adverse events following immunization (AEFI) can interrupt completion vaccination series and impair immunity. We wanted to assess how AEFI are shaping parents' knowledge, attitudes, and beliefs regarding immunizations.

Methods: We spoke with 200 parents across Northern British Columbia who had immunized their baby within the last year. Parents were asked to share their immunization experiences, to report reactions experienced (if any), intent to continue immunizations, and to discuss the importance and safety of immunizations. Data were collected during semi-structured phone interviews lasting from 10 – 40 minutes. Exploratory, qualitative analysis followed the editing style of analysis as established by Crabtree and Miller (1999).

Results: The preliminary analysis supported four themes currently shaping parent's knowledge, attitudes, and beliefs regarding immunizations: 1) The primacy of personal experience – current opinions were informed by their immunization experiences with previous children, or their knowledge garnered from their own education or professional background; 2) The family narrative – Extended families were talking about the risk and benefits of immunizations, and sharing experiences and knowledge from multiple generations; 3. Critical thinking online – Parents often used the Internet as a source of information, yet they remained wary about what information was trustworthy; and 4. Trust in health professionals - Parents were very positive about their experience with front line health care workers, and considered them to be a valuable source of information.

Discussion: This research illustrates what parents are saying about immunizations, but also how they organize their discussion. When this knowledge is translated into practice, it provides public health professionals with evidence-based avenues to engage parents in future discussions about AEFI, and the importance of adhering to infant vaccination schedules.

5133

National Surgical Quality Improvement Program (NSQIP) and Nursing Practice

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Objectives: To see the practice change that NSQIP has influenced on the Surgical Floor at the University Hospital of Northern British Columbia (UHNBC) around Catheter Associated Urinary Tract Infections (CAUTI).

Discussion: We believe that our topic most aligns with the conference topic, Knowledge Translation Strategies. The staff from the surgical floor, operating room, post-anaesthetic unit, and NSQIP partnered to change nursing practice in supporting a decrease in CAUTI's. The changes that were decided upon were based on research and evidence of what other facilities globally have been using with success. Specific changes were made by nurses in all areas of UHNBC that had beneficial outcomes to our patients.

Conclusion: NSQIP and the staff on the surgical floor performed frequent audits to ensure that there was data that would accurately reflect the outcome of the changes made. This practice change was made with success in decreasing the CAUTI rate. Interestingly enough, getting "buy-in" from staff initially was the biggest hurdle. At a year out, these practice changes are no longer questioned, just implemented as standard practice.

5110

Students Who Stay: Stories of Northern Medical Program Graduates and Place Integration

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Objectives: Building on previous studies of physicians' preferences and practice locations, this research brings together the personal experiences of new rural physicians who graduated from the University of British Columbia's Northern Medical Program (NMP). This research aims to provide a deeper and more thorough understanding of NMP graduates' experiences throughout their training and early careers in order to support their integration in northern communities. Keeping in mind the overall goal of improving physician retention in underserved northern communities, the results of this research will support program administrators in making informed, meaningful decisions about how the NMP engages and teaches current and future medical students.
Discussion: Guided by the overarching research question, 'What influences the evolution of NMP students' career decisions and place preferences throughout their medical training?', individual qualitative interviews were conducted to elicit participants' experiences prior to, during, and following their time in the NMP. The application of established place integration theories offers insight into how new northern-trained physicians make (re-)location decisions, dependent in large part on their sense of attachment to a place. A thematic pathway explains how student background and NMP and postgraduate experiences have influenced the evolution of participants' practice decisions over the course of their training. In addition to the influence of the local medical community, the importance of family connections and the surrounding sociocultural community emerged as having impacted these physicians' place preferences.
Conclusions: This research has produced a combination of established and unexpected results. Previous studies of rural physician preferences and decision-making related to place have reported similar themes discussed herein. However, unique local challenges and successes have also emerged from this research and provide new insight into issues of physician maldistribution and retention. Told using their own words, this poster features stories of NMP graduates' medical school experiences which have impacted their place-based decisions and may shape the long-term sustainability of physicians in the North.

5175

Exploring the Seasonal Dynamics of Food Security among the Homeless of Northern British Columbia

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Homeless populations around the world have poor levels of health and wellness, and food plays a critical role in this health status inequity. As a consequence of homelessness, people are more limited in their ability to control their food supply, including what they can purchase, prepare, save, hunt, forage, grow, and ultimately, consume. Despite interventions to improve nutrition for the homeless, there is limited understanding of their food acquisition strategies and how homeless populations navigate seasonal and daily barriers to improving their food security and nutrition. Understanding the acquisition strategies and the means through which food is available is important because it influences behaviours, including high-risk behaviour. This research will work to address this gap by engaging with homeless populations to explore their food related experiences, and how they may differ throughout the year. This research will explore the complexities of the food system of individuals who are homeless in Prince George, British Columbia, and the influence on their health and well-being. The goal of the research is to evaluate food security, food citizenship, and the right to food for this population in the unique socio-ecological context of this northern city, in order to help inform future food related initiatives. The first phase of this research involved the completion of a literature review and relationship building with community partners. This will be followed by modified community-mapping and semi-structured interviews. Three community mapping events will be held to gain an understanding of the food system at different times of the year, with the first event being held in Fall 2013. The interviews will build on the themes that emerge from the community mapping, while also exploring individual participant's personal experiences with food security, considering social, cultural and nutritional elements.

5098

Hypertension Prevalence, Awareness, Treatment, and Control, in South Asian Rural Immigrants in United Arab Emirates

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Tar-Ching *Aw*, *Institute of Public Health, College of Medicine & Health Sciences, United Arab Emirates University, Al Ain, UAE*

Objectives: Hypertension is the most important risk factor for cardiovascular disease. Few data is available on the status of hypertension among rural South Asian immigrants in United Arab Emirates (UAE). We therefore determined the hypertension prevalence, associated factors, awareness, treatment, and control among immigrants who came to UAE to work from rural villages of India, Pakistan and Bangladesh.
Methods: A representative sample of 932 immigrants from rural villages of India (n=273), Pakistan (n=206) and Bangladesh (n=453) aged 18 years or above with completed questionnaire, and blood pressure (BP) measurement was obtained between April and June 2012 in Al Ain, Abu Dhabi, UAE. Data on blood pressure, height, weight, waist and hip circumference were obtained using standard protocol. Information related to history of diagnosis and treatment of hypertension was collected through questionnaire.
Results: The average age of study participants was 33 years, with average stay of 8 years in UAE, and reported salary of US$ 400 per month. Majority (69%) were married. The prevalence of hypertension (BP ≥140/90 mmHg) was 28.8% (95%CI 25.9, 31.8). People with hypertension were more likely to be overweight (adjusted odds ratio (AOR)= 1.72;95%CI 1.18, 2.58), obese (AOR=3.50; 95%CI: 1.85, 6.64), to have waist-to-hip ration ≥0.90 centimeter (AOR=2.24; 95%CI 1.49, 3.38), to be a physician diagnosed diabetic or HbA1c ≥6.50 (AOR=2.84; 95%CI 1.63, 4.94) and family history of hypertension (AOR=1.75; 95%CI 1.18, 2.58). Off the total study people with hypertension (n=265) only 59 (22.3%) were aware. Off these less than half (44%) reported use of medicine for hypertension in the last two days. None of those with reported treatment of hypertension had controlled (<140/90mmHg) blood pressure.
Conclusions: Hypertension was prevalence in rural South Asian immigrants. The prevalence of awareness, treatment, and control of hypertension is very low. Urgent strategies are needed to improve prevention, detection and treatment of hypertension in this vulnerable population.

5126

Rural Dental Practice: A Scoping Review

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Introduction: With the growing demands on oral health care resources in rural and remote areas, greater emphasis should be placed on generating knowledge about rural dental care disparity. Therefore, the objective of this study was to identify issues influencing recruitment and retention of rural dental workforce.
Methodology: This study used a framework based on the York methodology outlined by Arksey and O'Malley to identify, evaluate and summarize publications identified by scoping review search strategy. MEDLINE was searched for the years 2000–2012, in English and French language. Qualitative information was charted from the selected literature.
Results: Seventy-three publications were evaluated, covering a wide spectrum of issues regarding rural dental practice. According to these reports, different factors, attractors, motivators and barriers play role in recruitment and retention of oral health care professionals in rural and remote areas. Although some of these factors are non-modifiable (age, gender, ethnicity, background, climate and distance), organizational or contextual (financial incentives, environment and life style) in nature, several are related to the amount of reflective awareness of individuals (rural training, education and experience). This review identifies a wide gap in Canadian rural dental workforce research and publications.
Conclusion: While personal and environmental factors that impinge on recruitment and retention of rural dental workforce may be difficult to change, innovative pedagogical approaches may promote rural dentistry by increasing awareness of the potential advantages of working in rural areas.

5149

Nurse-Led Poster Challenge: Breastfeeding Support in a Virtual World

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Objectives: Explore whether access to online breastfeeding information and virtual support will have an increase on the duration rates of breastfeeding. To understand how social media could be used to support breastfeeding in the rural setting of Northern Health.
Discussion: Social media and breastfeeding are explored separately as there is no literature around the usage of social media as a breastfeeding support tool. Social media is being used for different health promotion ideas with success. Social media has been identified as way that individuals feel supported and connected to others. Breastfeeding has been identified as a health improvement strategy for both mother and baby but duration rates are decreasing. Duration rates for breastfeeding have been found to increase when there is support for breastfeeding. Northern Health's Mission, Vision and Strategic Plan seeks to provide exceptional high quality, integrated and accessible services using an upstream Population Health approach. Use of social media is a way to integrate service and allow accessibility to breastfeeding support across the north. As a Population Health approach the benefits of breastfeeding and subsequent reduction of health risks for families can be enduring.
Conclusion: Social Media is becoming the norm in health care and it needs to be viewed as an opportunity to support more individuals across the north. Provision of this type of support to breastfeeding mothers should increase the duration rates of breastfeeding.

5094

Developing a Service Process Costing Model – A Study of a Service Process at Northern Health (BC)

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Health care spending in Canada has increased to a large extent since 1975. However, recently slow economic growth and government's budget deficits have moderated the pace of spending growth and the proportion of Canada's gross domestic product (GDP) spent on health care declined to a large extent (11.6% in 2012 from 11.7% for the year 2011, and 11.9% in 2010). The budget deficits and balanced budget approach taken by the provincial governments have put pressure on the management of hospitals and other health care providing institutions to find ways to reduce costs and use resources at their command more efficiently. To make the system cost effective while providing better quality services to the Canadians the management of health care institutions and facilities would like to improve the quality and reduce the cost of their services. The reduction in cost and improvement of services quality can be achieved if a detailed analysis of the cost of the health care service process is made available to the manager responsible for improving the process for quality and cost efficiency.
In this paper a service process costing model would be developed that could be used to measure detailed cost of a health care service process at Northern Health. So far, the literature related to Business Process Orientation (BPO) performance measurement has shown various ways to measure productivity and cost but we have not seen any specific conceptual model that could be helpful in using a suitable costing methodology to measure productivity of a service providing process of an organizations in terms of $ cost at an operation /task/ or sub-task level to identify the resources where cost savings can be made. This paper would present a service process costing model using 'Business Process Orientation' (BPO) and 'Operation Based Costing' (OBC) approach to identify the generic cost elements for a health care service process to measure cost.

5099

Health and Safety Issues of Nurses in Northern Remote Nunavut

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Geographically remote, the territory of Nunavut experiences particular social, economic and health issues amid extreme climate conditions. Community health nurses (CHNs), the primary healthcare providers for the remote communities in Nunavut are critical to the wellbeing of the Nunavut population, and in turn, to the sustainability of Nunavut. Remote nursing research has been given minimal attention internationally and in Canada, and the value and voice of remote nurses has been underrepresented and relatively unheard. The purpose of this research project is to identify the physical and psychological health and safety issues of nurses practicing in remote Northern Nunavut, using the research tools of a comprehensive literature review and anecdotal data from informal interviews with community health nurses in Nunavut.
Along with the territory's barren land, extreme weather, lack of reliable communication and transportation systems, geographical remote location, and personal and professional isolation, Nunavut nurses face staggering challenges which superimpose and interrelate with the physical and psychological health and safety factors already well known to nurses. With an alarming 30-40% nurse vacancy rate in Nunavut, the workplace issues of Nunavut nurses must be identified and addressed. These issues have lacked attention in the past but are crucial to the sustainability of quality healthcare delivery in Nunavut.
Recommendations and suggestions for strategies to improve the physical and psychological well-being of Nunavut nurses are put forward based on the findings of this research project. It is also anticipated that the information provided in this study will be used as a building block for further health research in Nunavut, as well as a contribution to the international knowledge base of rural, remote and circumpolar health and nursing research.

5135

Developmental Evaluation in Northern Health: A Critical Component to System Transformation

Kristin Turnbull, *Community Evaluator, Northern Health;* **Sherri Tillotson,** *Lead- Integrated Primary and Community Care, Northern Health;* **Janice Paterson,** *Community Evaluator, Northern Health;* **Tanis Hampe,** *Regional Director- Quality and Innovation, Northern Health*

Northern Health is undergoing a transformative change of Community Health Services care to align with the organization's vision of 'integrated and accessible health services'. A critical success factor in achieving this vision has been developmental evaluation.
The purpose of this presentation is to share and discuss the evaluation approach, the reach of evaluation, experiences to date and next steps.
The Process: The evaluation team attends several local and regional meetings to document and share the collaborative voice of the room in an attempt to collectively build understanding amongst key stakeholders and holistically inform the work moving forward. To spread learnings, the evaluation team creates a number of reports, most commonly field notes, which provide key learnings, context and observations in consideration of both the local and regional perspective. Data is collected through a variety of settings and are representative of a multitude of professions and expertise then are validated through continued sharing of findings and literature.
The Reach/Experience: Over 500 micro-level learnings that help inform day-to-day transformative efforts have been captured, and have been themed into 13 perspective categories based on successful characteristics of high performing clinical microsystems. Themes range from 'large working group engagement and building interconnectivity' to 'education and training needs' and affect prototype teams directly entrenched in the work, as well as change support teams as they become more involved. Observations, learnings and theme categories show shifts in culture and the inclusion of stakeholders and partnerships, while provided real-time decision-making support to executive and leads.
Next steps: Sharing learnings in this fashion has offered the opportunity to detect and compare current and future state operations, inform the development of a curriculum, and support transparency and communication between prototype communities. The evaluation has documented aspects of change efforts that will be useful for communities continuing this work and can adequately highlight significant successful aspects leading to, and barriers of, change.

5132

Examining Lifestyle Information Needs among Rural Breast Cancer Survivors in Northern British Columbia: A Cross-Sectional Study

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Background: Breast cancer survivors (BCS) often seek information about body weight (BW), diet and physical activity (PA), and the role these play in breast cancer outcomes such as cancer recurrence or survival. While lifestyle-related programming for BCS exists in many urban centres, no such services are offered to BCS in Northern British Columbia (BC).
The purpose of this study was to determine the lifestyle information sources and needs of rural BCS in Northern BC.
Methods: This cross-sectional study included a mailed survey to a random sample of 300 women generated from the BC Cancer Registry (April 2013). To be eligible, women had to be residing in the BC Cancer Agency Centre for the North catchment area and diagnosed with breast cancer within the last 6 years.
Results: A total of 132 BCS responded to the survey (response rate 48%). Of the respondents 88.6% were over 50 years of age; 85.5% identified as Caucasian, 11.1% identified as First Nations; 69.5% live in a community, 30.5% live rurally. Most (97.7%) BCS reported receiving surgery and approximately half received chemotherapy (56.1%) and/or radiation (53.5%). The majority (67.9%) of BCS reported BW changes after diagnosis and making changes in food choices (56.6%) and PA (49.6%). Most BCS currently want to change their eating (66.9%), PA (77.4%) habits and BW (72.9%). Specifically, BCS want to know more about how eating patterns (69.9%), nutrients (76.9%), PA (68.9%), and BW changes (58.4%) may reduce risk of recurrence or improve survival from breast cancer. BCS most frequently look to physicians for information about BW (72.9%) and to friends and family for information about eating (58.9%) and physical activity (65.7%). BCS most frequently sought information from the internet for information about BW (42.9%) and to magazines for information about eating (52.9%) and physical activity (49%).
Discussion: BCS in Northern BC are interested in making lifestyle changes to improve their health and are interested in receiving specific lifestyle related information. The results of this study can inform the delivery of services for rural BCS in Northern BC and possibly other rural communities.

5131

Exploring Bottlenecks in the Diagnosis and Treatment of Lung Cancer in Northern British Columbia

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Objective: The Northern Health Authority (NHA) is the most geographically vast and sparsely populated health region in British Columbia. Although lung cancer remains the leading cause of cancer death in the province, prognosis is significantly worse for patients in the NHA. While higher smoking rates, co-morbidities, and later presentation to physicians may contribute to worse outcomes, most communities do not have diagnostic facilities for lung cancer. As well, there were no thoracic surgeons or radiation oncology facilities available in the region over the present study period.
The purpose of this study is to quantify timelines from symptoms to diagnosis, and from diagnosis to treatment, for lung cancer patients within the NHA, and to explore variability in timelines and utilization of cancer services across this largely rural jurisdiction.
Methods: All lung cancer patients residing in the NHA, diagnosed from 2000 – 2010, were retrospectively identified through the BC Cancer Registry and the Cancer Agency Information System. Patient demographics and treatment information were collected through the BC Cancer Agency (BCCA), and a chart review was performed to collect information pertaining to the patients' pathway from symptoms to treatment.
Results: 1832 patients with lung cancer were diagnosed in the NHA from 2000 – 2010, 854 (47%) of whom were referred to the BCCA. The mean age at diagnosis was 68, and 56% were male.

The most common presenting symptoms were cough (22%), dyspnea (19%), and symptomatic metastases (19%). The median time from symptom to diagnosis was 76 days. The median time to see an oncologist from diagnosis was an additional 28 days. Fifty-nine percent of patients made two or more trips outside of their hometown for diagnosis and initiation of treatment. The median overall survival was 6.5 months.
Conclusions: We believe that a delay of over 3 months from first symptom to oncology consultation is unacceptable. We plan to further explore the relationship between timelines and patient survival. We hypothesize that a navigation system could help coordinate diagnosis and treatment, reducing the long delays and potentially improving outcomes.

5141

Methadone Maintenance Treatment Services Environmental Scan in Northern BC

Tricia Wright, *Independent Consultant, Northern Health;* **Marcia Bertschi,** *Northern Health;* **Franca Petrucci,** *Drug Treatment Funding Program;* **Jim Campbell,** *Northern Health*

Methadone Maintenance Treatment (MMT) is a medical treatment for people who are dependent on opioid drugs (illicit or prescription) to help manage their addiction. In March of 2012, Northern Health (NH) and the Drug Treatment Funding Program (DTFP) partnered to develop an environmental scan of MMT services in the North. The purpose of this scan is to guide discussions and planning to improve MMT in the North. The environmental scan is a snapshot of Northern MMT services: the number of physicians prescribing methadone, number of pharmacies dispensing methadone, number of clients, and brief descriptions of MMT services are discussed. Quantitative and qualitative data sources were used: the NH Mental Health and Addictions Synapse database; the Pharmacare (Ministry of Health) database; information provided by the BC College of Physician & Surgeons and by the BC College of Pharmacists; and interviews and discussions with stakeholders. Indeed, over 10 years in the North Region (2001-2011), the number of pharmacies and new clients has doubled but the number of physicians prescribing methadone (22 physicians) has remained the same. Approximately 9% of Northern MMT clients travel over 100 kms one way to access methadone prescribers (some as far as 300+ kms one way). All programs provide referrals to mental health and addictions services and supports, but do not offer formal psychosocial supports. Therefore, the scan includes key recommendations for the short, medium and long term. Although some consider it to be controversial, MMT has the potential to help drug users reduce or stop using opioids and resume productive lives. Northern MMT programs have many strengths to work toward innovative ways of meeting their challenges. The scan has provided information which may support strengthening services and supports for the people of British Columbia's northern region.

5101

DDT Exposure and Lung Function in Agriculture in Canada

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Introduction: DDT, an organochlorine insecticide, was widely used to control insects in agriculture before it was banned in the early 1970s in Canada. Nevertheless, its persistence in the environment still poses dangers to human health. In the Agricultural Health Study in US, adult-onset asthma and wheezing were associated with exposures to organochlorine pesticides, including DDT. However, little is known about the effect of DDT on respiratory health in agriculture in Canada. In the present study, the relationship between DDT levels and lung function was examined using data from the Canadian Health Measures Survey (CHMS).
Methods: Levels of DDT and its metabolite DDE were measured in blood samples of CHMS participants aged 20-79 years (n=1,666). Lung function parameters include FVC (forced vital capacity), FEV_1 (forced expiratory volume in one second), FEV_1/FVC ratio and $FEF_{25\%-75\%}$ (forced expiratory flow between 25%-75% of FVC). Associations between DDT and DDE levels and lung function were characterized by multiple linear regression after adjusting for age, sex, ethnicity, standing height, smoking status and daily energy expenditure. Interaction between the DDT/DDE level and agricultural occupations will be examined.

Results: Almost all Canadians had DDT-related compounds in their blood samples: 9.25% had detectable DDT and over 99.0% had detectable DDE. Subjects with detectable DDT had lower mean FVC (Male: 4.10L vs. 4.38L, Female: 3.46L vs. 3.74L; p=0.006) and FEV_1 (Male 3.20L vs. 3.42L, Female: 2.68L vs. 2.89L; *p*=0.019) than those without. No significant differences were observed in FEV_1/FVC ratio and $FEF_{25\%-75\%}$. Dose-responsive effects of DDT on FVC and FEV_1 were also significant, particularly for subjects in the upper 50% percentile of DDT levels.
Conclusions: These data suggest that evidence of exposure to DDT, which may have occurred decades ago, was still apparent among Canadians. Levels of DDT in blood were associated with reduced lung function in a dose-responsive manner. These results will raise awareness of the potential adverse effect of DDT on respiratory health. Future study will focus on examining the agricultural occupation specific effect on the association of DDT with lung function and respiratory diseases.

5091

Towards a New Index for Healthcare Facilities' Sustainability in Canada

Bann Zahir, *Natural Resources and Environmental Studies, UNBC, Prince George, BC;* **Ron Thring,** *Natural Resources and Environmental Studies, UNBC, Prince George, BC*

There are over three thousand hospitals, medical clinics and centers in Canada. These facilities tremendously impact both the individual health as well as ecological, social and economic health of the country. Economically, the healthcare sector constitutes more than 10% of the nation's gross domestic product. Ecologically, a hospital's energy consumption is of particular significance as it contributes up to 50% of the total ecological footprint of the facility, while a hospital's waste output varies from relatively mild to toxic and possibly lethal ecological contaminates. As these facilities are moving towards more complex implementation of sustainable development, they have a crucial leadership role to play that extends beyond simply introducing some greening policies to adopting a comprehensive plan for sustainability. In this research, we found that 85% of hospitals in Canada do not advertise sustainability on their websites and minimally promote aspects of it. This percentage is even higher for northern hospitals. The available literature is especially scarce for northern hospitals and does not speak of indices to measure sustainability in a holistic approach but rather is fragmented and in a trivialized manner. In fact, sustainability in northern hospitals is driven primarily by one parameter: energy consumption. However, the challenges that northern healthcare facilities face largely due to their remote geographies, low occupancy and inclement weather conditions do not present barriers for inclusion of other sustainability parameters. The paper presents an overview of best practices in this area, and provides a scan of one hospital that can be considered as a paradigm that must be copied throughout all regions in Canada. Finally, we provide a healthcare facility *sustainability index* that can be used as a guideline for strategists to include in their plans to reduce the impact of a hospital's operations that takes into consideration green building principles such as LEED, buying green power, waste reduction and material reuse to reach a healthcare without harm.

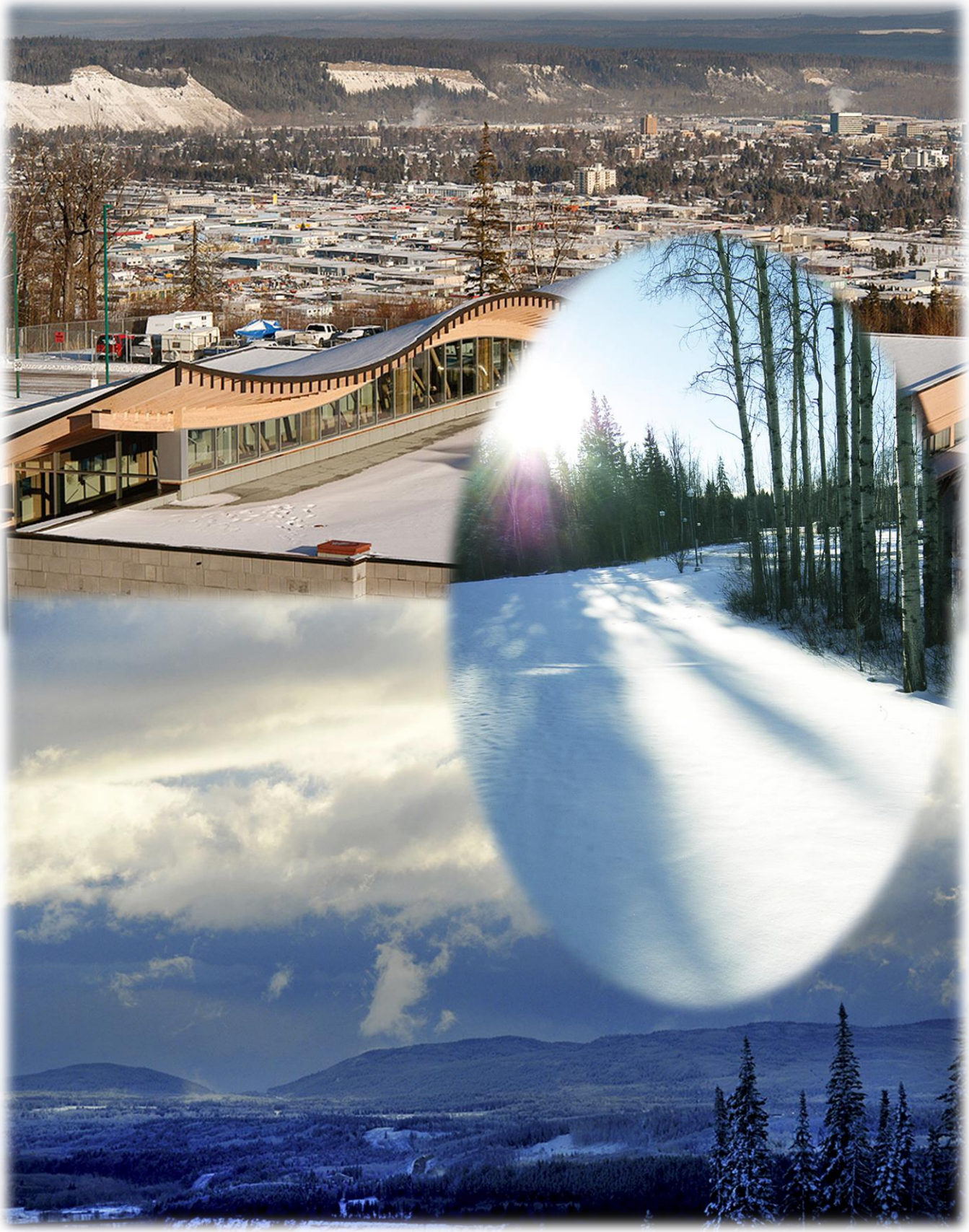
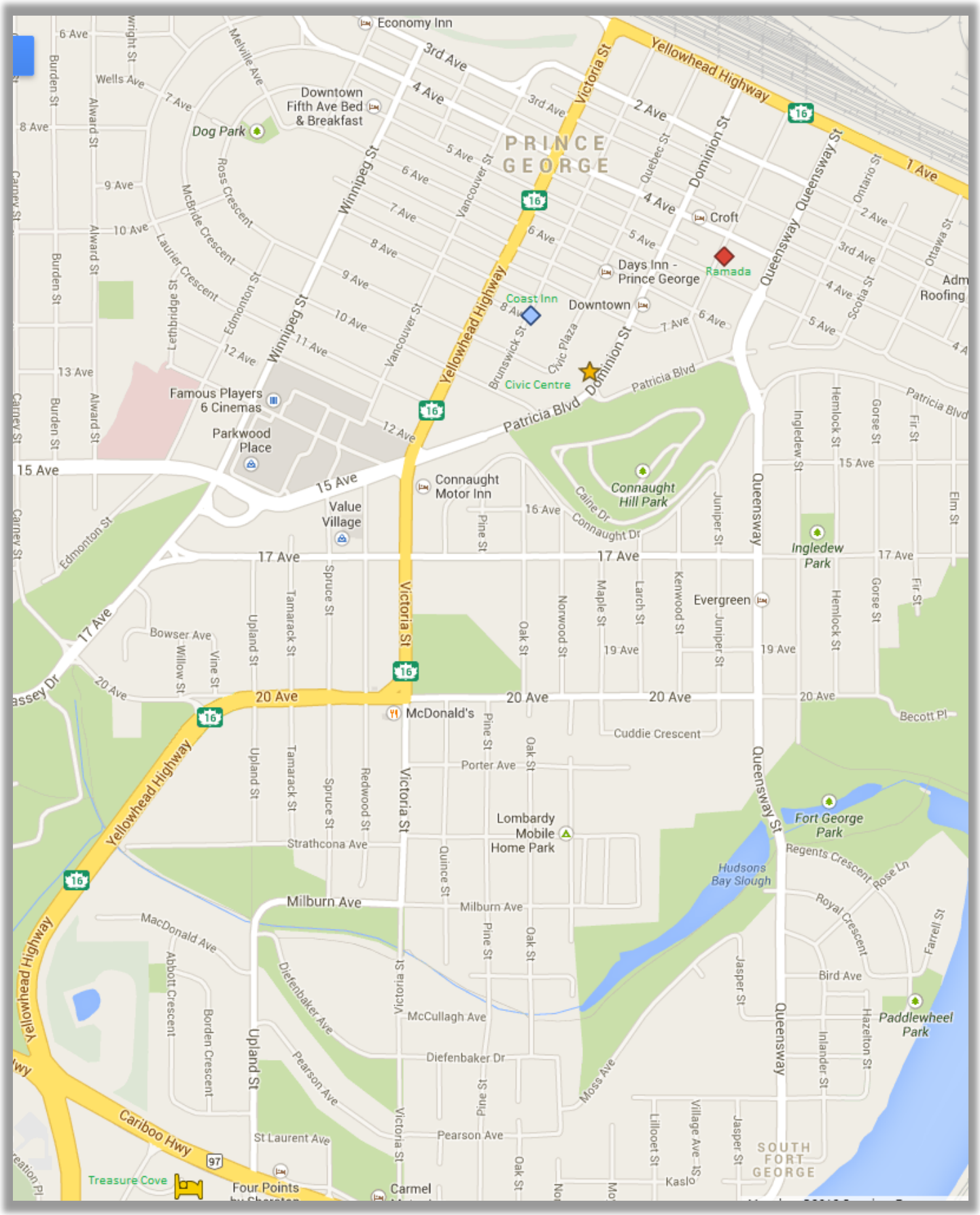


Photo courtesy of UNBC Communications

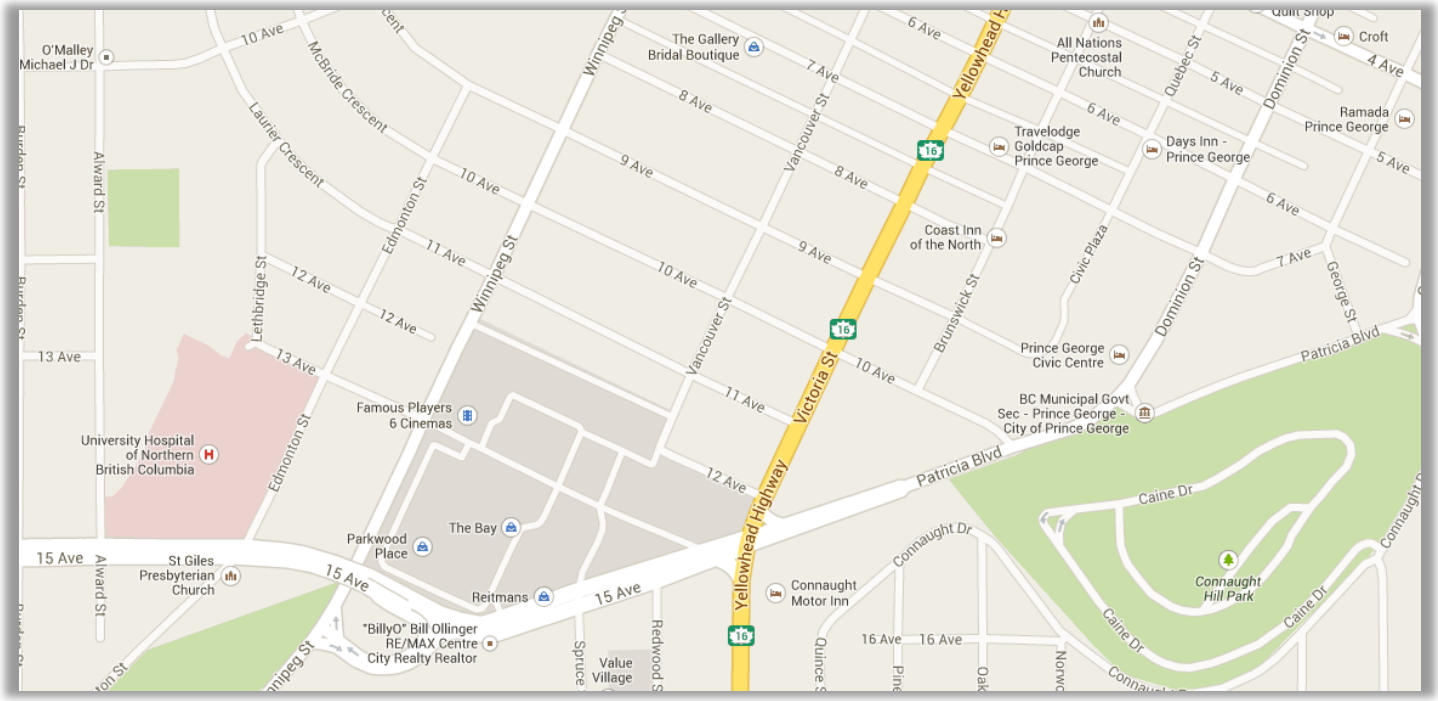
MAPS & EVALUATION

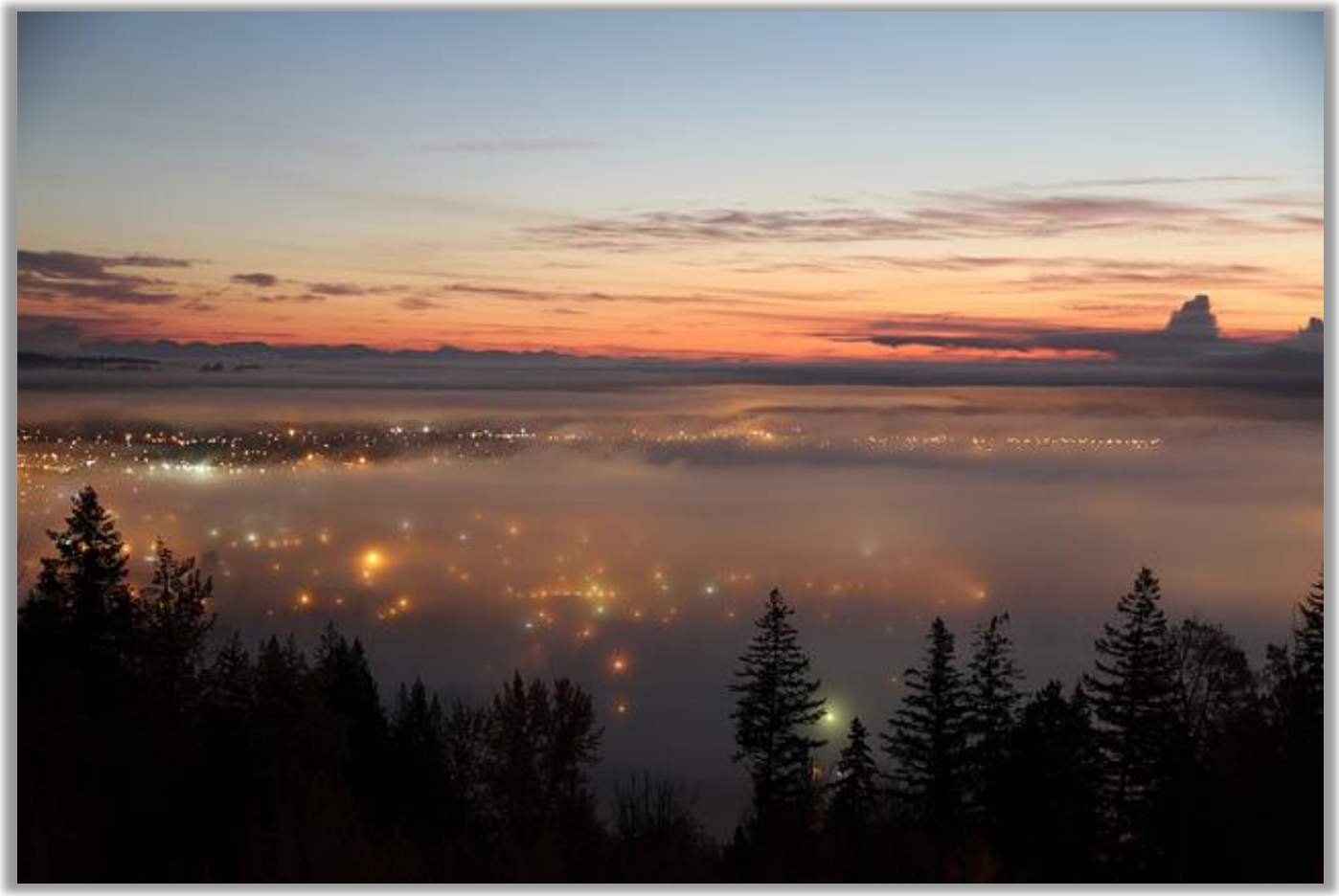
Stories of RURAL HEALTH through Knowledge, Research & Collaborative Action

Maps of Prince George/Downtown



Maps of Prince George/Downtown





Prince George at Evening

Photo courtesy of UNBC Communications

CONFERENCE EVALUATION FORM

"Stories of Rural Health through Knowledge, Research and Collaborative Action"

November 13-15, 2013

Prince George, British Columbia

1. What were your expectations for this conference?

_____

_____

Were they met? Yes ( ) No ( )

2. What did you like most about the conference?

_____

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_____

3. What could have been improved about this conference?

_____

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4. Did you attend a workshop on Wednesday?
Yes ( ) No ( )

If yes, please comment on the overall quality of the workshops:

_____

_____

5. Suggestions for future workshops: _____

6. Did the program allow for: (Please check appropriate box)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Adequate networking					
Group discussion					
General information about rural & remote health research					
Interface between research and practice					
Interface between researchers and community members					
Sufficient breaks					
Adequate number of keynote speakers					
Adequate number of concurrent sessions					
Sufficient variety of paper, keynotes and panels					

7. If this conference was held again next year, would you be interested in submitting an abstract?

Yes ( ) No ( )

Attending even without presenting?

Yes ( ) No ( )

8. Other comments:

_____

_____

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_____

Thank you!!

Stories of RURAL HEALTH through Knowledge, Research & Collaborative Action

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UNIVERSITY OF SASKATCHEWAN

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