PROGRAM AND BOOK OF ABSTRACTS

14th Conference of the Canadian Rural Health Research Society
Better Health for Rural Canadians: from Evidence to Practice
Edmonton, AB  September 20-22, 2015

In Partnership with the
Canadian Association for Rural and Remote Nursing (CARRN)

crhrs-scrsr.usask.ca  crhrs-scrsr@usask.ca
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The 14th 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.

Photo from https://en.wikipedia.org/wiki/Edmonton
WELCOME!

As Chair of the Board of the Canadian Rural Health Research Society, it is my pleasure to welcome you to this important conference in Edmonton, Alberta, our fourteenth. This year’s conference will address a highly relevant and topical question: how can we use the evidence derived from our research to enhance the practice and the outcomes of health care for rural Canadians? While this question has been a recurring theme at our previous conferences, this time we have put it explicitly in the spotlight. The keynote addresses, papers and posters at this conference will feature a wide range of approaches to this fundamental issue. I am very much looking forward to hearing what they have to say.

Our conferences are often co-sponsored with another organization whose interests and mandate overlap with ours. This year, we have found a perfect partner—the Canadian Association for Rural and Remote Nursing (CARRN). Working with them in the preparation of the conference has gone very smoothly and we anticipate that the interaction between our membership and theirs will generate productive discussions and interesting future collaborations.

Thank you for attending the 14th Annual CRHRS conference and have a great experience!

Stephen Bornstein
Stephen Bornstein, Chair, CRHRS
In Partnership with the
Canadian Association of Rural and Remote Nursing

Greetings,
On behalf of the Canadian Association for Rural and Remote Nursing (CARRN), we are delighted with the opportunity to participate and partner with the Canadian Rural Health Research Society (CRHRS) conference which will be hosted in Edmonton, Alberta, on September, 20-22nd 2015. CARRN is a national association whose membership includes rural/remote registered nurses (RNs) and nursing students.

CARRN members are engaged in a variety of activities including clinical practice, mentoring/connecting students with rural RNs, conducting research on rural issues, promoting political and social advocacy with rural populations. Our members live and work in rural settings and do so with pride and dedication. The CARRN organization is committed to issues in these settings, most notably the health care needs of rural communities.

Participating in the CRHRS conference offers an avenue to dialogue, network and seek innovative solutions and ideas in relation to social, educational and health care needs.

On behalf of CARRN I wish participants an enjoyable conference, perhaps taking away renewed energy to continue to contribute to our rural communities.

Best wishes,

Deirdre Jackman, PhD, RN
Deirdre Jackman, President, CARRN

Welcome to the 14th Canadian Rural Health Research Society Conference
I would like to welcome everyone to the 14th Annual Conference of the Canadian Rural Health Research Society. It has been a pleasure to develop the program under the conference theme of “Better Health for Rural Canadians: From Evidence to Practice”. This year’s partnership between the CRHRS and the Canadian Association of Rural and Remote Nursing (CARRN) has resulted in a very creative and exciting program of keynote speakers and workshops to complement the concurrent sessions.

This conference is the culmination of the hard work of many individuals. Thank you to the Conference Organizing Committee and the Scientific Review Committee (Stephen Bornstein, Elham Emami, Sueli de Freitas, Dana Edge, Silvia Vilches, Kyle Whitfield, Shelley Kirychuk, Pertice Moffitt, and Karen Bartlett) for their hard work and commitment to ensuring the success of the conference. A special thank you to our conference secretariat, Sueli de Freitas and Lorene Jewitt, for their assistance in developing this exciting program and for contributing to the success of CRHRS conferences from year to year.

The next few days will provide networking and learning opportunities for researchers, decision makers, practitioners, policy makers, graduate students, community members and other stakeholders interested in the health and well-being of rural and Northern residents. We are pleased to provide this venue for attendees from across Canada to share and discuss current findings on rural and Northern health issues and explore means for enhancing communication between front line workers, community members, researchers and policy makers.

We hope you will take the time to learn, be informed, meet new people, make new friends, and enjoy Edmonton.

Bonnie Jeffery
Bonnie Jeffery, Scientific Chair
“Better Health for Rural Canadians: from Evidence to Practice”

Edmonton
We are pleased to welcome you to the beautiful and dynamic city of Edmonton, Alberta for the 2015 CRHRS Conference "Better Health for Rural Canadians: from Evidence to Practice".

Alberta’s capital, known as Canada’s Festival City, is always celebrating something, from arts and culture to food and wine, dragon boats, winter and even accordions. With more than 50 festivals throughout the year, you’re bound to find a crowd pleaser. Come to the historical Old Strathcona district for a festival and come back to explore the famous farmers’ market and the galleries and shops. Visit with local vendors, find a funky restaurant and stick around for the night life – live theatre, music and dancing. Escape the urban bustle without leaving the city. Twenty-two major parks make up Edmonton’s ribbon of green stretching along the North Saskatchewan River – the largest expanse of urban parkland in North America. Many of the summer festivals happen here. All along its 150 km (93 mi) of multi-use trails, you’ll encounter happy cyclists, runners and ramblers. When the snow falls, embrace the city’s passion for winter and take in an authentic winter festival. Go cross-country skiing and snowshoeing in the river valley. Carve some powder on four downhill ski slopes right here in the river valley.

(excerpt from travelalberta.com)

Edmonton, a city well worth exploring and a fabulous host for this conference!

[Images of Edmonton landmarks]
ACKNOWLEDGMENTS

Appreciation must be expressed to:
Canadian Centre for Health and Safety in Agriculture
for their ongoing support of the Canadian Rural Health Research Society

Workshop Presenters
Bonnie Jeffery, Sylvia Abonyi, Sarah Oosman, Kyle Whitfield,
Noreen Johns, TJ Roy, Liz Durocher
Elham Emami, Roger Butler, Gerard Farrell,
Stephen Bornstein, Nicholas Giraudie

Keynote and Plenary Speakers
Kue Young, Wendy Duggleby, Kristin Jacklin

Session Chairs/Moderators
for the concurrent, keynote and plenary sessions
Juanita Bacsu, Stephen Bornstein, Dana Edge, Elham Emami,
Deirdre Jackman, Shelley Kirychuk, Pertice Moffitt, Silvia Vilches, Kyle Whitfield

All those presenting papers and posters
at this conference

The Scientific Review Committee
for their review of the abstracts
Karen Bartlett, Stephen Bornstein, Dana Edge, Bonnie Jeffery,
Shelley Kirychuk, Pertice Moffitt, Silvia Vilches, Kyle Whitfield

Program Committee
Sueli Bizetto de Freitas, Bonnie Jeffery, Shelley Kirychuk

Conference Planning Committee
Sueli Bizetto de Freitas, Conference Secretariat
Stephen Bornstein, Elham Emami,
Deirdre Jackman, Bonnie Jeffery, Lorene Jewitt
Shelley Kirychuk, Silvia Vilches, Kyle Whitfield

KEYNOTE SPEAKER
While it is general knowledge that health care in Canada is “unsustainable”, as evidenced by the increasing proportion of provincial budgets devoted to health care, Canadians are not generally aware of the situation in the three northern territories. It would appear the situation there is even more critical. In terms of per capita health expenditures, Nunavut ranks the highest in the world among countries, with the Northwest Territories not far behind. Yet in terms of population health outcomes, the North lags far behind that of the South, and considerable health disparities persist between the Aboriginal and non-Aboriginal populations within the North. There is an urgent need to understand the causes and design interventions that will improve health system performance. In terms of solutions, these can be summed up in seven words: Policies, People, Places, Costs, Links, Tools, and Data.

*Kue Young* was appointed Dean of the School of Public Health at the University of Alberta in August 2013. He has previously served as TransCanada Chair in Aboriginal Health at the University of Toronto and Head of the Department of Community Health Sciences at the University of Manitoba. A public health physician with a PhD in anthropology he devoted much of his professional life as a primary care physician, public health administrator, and academic researcher in Aboriginal and northern communities of Canada and the circumpolar region. For his contributions to Aboriginal and northern health research, he was inducted a
Fellow of the Canadian Academy of Health Sciences in 2009 and Member of the Order of Canada in 2010. He is currently leading a CIHR team grant in community-based primary health care that seeks technological, organizational and human resources solutions to health system improvement in the North.

PLENARY SPEAKER

Dr. Wendy Duggleby
Monday, September 21, 2015
1215 – 1315
Radisson Edmonton South, Jubilee Ballroom ABC

“Giving Voice to Rural Perspectives in Navigation Health Research”

This plenary will discuss strategies that facilitate honoring the rural perspective in a program of health research. Specific examples will be presented from the author’s research on the development and evaluation of rural navigation services. These will include strategies that helped to give voice to rural perspectives and those that have been a barrier. Rural communities and their perspectives are very diverse. However it is important that rural perspectives are incorporated into health research so that it reflects the uniqueness of the rural context.

Wendy Duggleby, through her active “living with hope” program of research, has developed innovative ways of communicating her findings that assist people in the community and their families to deal with difficult health situations. She has published widely in interdisciplinary, refereed international journals. Her large body of research has contributed to the development of knowledge relating to hope and quality of life in a number of populations, such as palliative care patients and their formal and informal caregivers. She has led studies not only to understand these vital issues, but also to improve the experiences and outcomes of patients and caregivers. She uses a wide range of research methods to build knowledge, and her research is specifically designed so that the knowledge can inform nursing research, practice and policy.

Dr. Duggleby has had a remarkable impact on the delivery of health care and health-care services through the production of films and materials that communicate her research findings through innovative media. Her work demonstrates the diverse and profound ways that research can influence and help patients and their families. This has resulted in several awards for her research. She also strives to develop the capacity of other researchers to enhance the quality of life of older adults through innovative research.
Throughout her career, Dr. Duggleby has demonstrated a consistent pattern of exemplary contribution to the profession of nursing and the lives of patients and their families.

PLENARY SPEAKER

Dr. Kristen Jacklin
Tuesday, September 22, 2015
1030 – 1130
Radisson Edmonton South, Jubilee Ballroom ABC

“From Perceptions to Praxis: The Study of Age-Related Dementias with Indigenous Peoples in Canada”

Over the last decade rates of age-related dementias have been increasing in Indigenous populations. Although the incidence and prevalence of dementia in First Nations in Canada appears to have out-paced that of the non-First Nations population, age-related dementias are still considered an emerging health concern by many Indigenous communities. Beginning in 2009, a research strategy was devised to understand and address growing concerns about dementia in Indigenous communities. The research has been driven by community research partners who first noticed an increase in the number of elderly requiring dementia care in 2007. The work combines anthropological theoretical frameworks such as critical interpretive anthropology with Indigenous knowledge approaches to research within a community-based participatory research model. The early objective has been to collect and analyze foundational information concerning knowledge, attitudes, perceptions, and cultural values concerning dementia and aging in diverse Indigenous communities. The second objective is to consider how the foundational findings can inform culturally relevant approaches to dementia diagnosis, treatment and care. This presentation will share highlights from research findings and explore the transition of those foundational findings into applied and intervention-based research studies. The significance of the foundational work to sustaining funding and advocacy activities will also be discussed.

Kristen Jacklin joined the Northern Ontario School of Medicine (NOSM) in 2005 as part of its founding faculty. She was trained as a medical anthropologist with a focus on Indigenous health at McMaster University. Dr. Jacklin brings a social science and health equity perspective to her teaching and research. Her teaching portfolio includes significant contributions to the development and delivery of the socio-cultural and Aboriginal health content for undergraduate medical students. She has previously served as Chair of the Northern and Rural Health Course Curriculum Committee at NOSM and has been involved in national initiatives to develop core competencies in the area of Aboriginal health in medical education. Dr. Jacklin has expertise in participatory and community-based health research with Indigenous populations, Aboriginal health policy, cultural safety, qualitative methods, and cross-cultural medical education. She is committed to research that is participatory and action-oriented. She leads and collaborates on several research projects that aim to improve chronic disease care and outcomes for Indigenous peoples in Canada including investigations on age-related dementias and national and community-based projects on diabetes. She is one of the principal investigators
on the CIHR-funded Canadian Consortium on Neurodegeneration in Aging and co-leads the team concerned with Indigenous dementia care.

WORKSHOPS
Sunday, September 20, 2015
Radisson Edmonton South, Jubilee Ballroom A, Level 2

“Community-based Health Research with Rural and Northern Communities”
1230 – 1430

This workshop is intended for researchers, practitioners and policy makers who are interested in learning about the fundamentals of community-based research directed at moving research findings to action. During this interactive session we will: highlight key components of community based research to integrate into research proposals and plans; identify strategies for implementing effective community-based research and identify the successes and challenges from the perspective of both academic researchers and community research partners. The presenters will highlight specific strategies and approaches through case examples of current research with rural and northern communities.

Presenters:
Dr. Bonnie Jeffery, Social Work, University of Regina
Dr. Sylvia Abonyi, Community Health and Epidemiology, University of Saskatchewan
Dr. Sarah Oosman, Physical Therapy, University of Saskatchewan
Dr. Kyle Whitfield, Community Management, University of Alberta
Noreen Johns, Community Research Partner, Zelma, SK
TJ Roy, Community Research Partner, Ile-a-la Crosse, SK
Liz Durocher, Community Research Partner, Ile-a-la Crosse, SK

“E-Health Delivery of Services for Rural and Northern Populations”
1500 – 1700

This interactive workshop will provide an introduction to e-health and its use in rural and northern settings. The session will cover the basic concepts of e-health and present several case studies examining the uses and limitations of delivering various types of health services electronically to patients in rural and northern communities in Canada and elsewhere. The presentations and the discussion will be of interest to researchers, graduate students, clinicians and policy makers interested in the implementation of technology-based solutions to the challenges of rural and northern health care.

Presenters:
Dr. Elham Emami, Oral Health and Rehabilitation Research, Université de Montréal
Dr. Roger Butler, Family Medicine, Memorial University, NL
Dr. Gerard Farrell, Family Medicine, Memorial University, NL
POSTER VIEWING and RECEPTION

Monday, September 21, 2015
1730 – 1930
Radisson Edmonton South, Jubilee Ballroom B, Level 2

The 14th Annual CRHRS Conference is featuring a People’s Choice Award for best poster. Ballots and the ballot box can be found at the Registration table. Voting closes at 1900 on Monday. The winner will be announced during the closing remarks on Tuesday, September 22, 2015.
POSTER PRESENTATIONS

Jubilee Ballroom B, Level 2
POSTERS PRESENTATION GUIDELINES:
1. Posters will be up for viewing throughout the Conference. Posters must be set up between 1500 and 1900 on Sunday, September 20th and removed by 1130 am on Tuesday, September 22nd.

2. Maximum poster size is 8 ft wide by 4 ft high, (249 cm wide by 122 cm high in metric).

3. At least one (1) Author/Presenter must be available for viewing to discuss the project.

4. Each poster will be assigned a poster board. Please check the boards for your poster number.

5. The poster board takes push pins and Velcro only. Push pins will be provided for poster presentations.

ORAL PRESENTATION GUIDELINES:
1. Time allotted for presentations is 15 minutes, plus 5 minutes for questions.

2. The order of presentations in the assigned session will follow the order of the program.

3. Please arrive at your concurrent session at least 10 minutes prior to the start of the session to upload your presentation onto the laptop. Please identify yourself to the Session Chair.

4. If you encounter any difficulties, consult the Session Chair or the Registration Desk.

5. Presenters are responsible for ensuring your presentation is suitably prepared.
## MONDAY, September 21, 2015

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>0730 – 1600</td>
<td>Conference Registration</td>
<td>Jubilee Ballroom A (Exterior), Level 2</td>
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<tr>
<td>0730 – 0830</td>
<td>Continental Breakfast</td>
<td>Jubilee Ballroom B</td>
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<td>0830 – 0845</td>
<td>OPENINGS AND GREETINGS:</td>
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<td>Stephen Bornstein, Conference and CRHRS Chair</td>
<td>MODERATOR: STEPHEN BORNSTEIN</td>
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<td>Deirdre Jackman, CARRN President</td>
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<td>0845 – 0945</td>
<td>KEYNOTE SPEAKER:</td>
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<td>Dr. Kue Young, School of Public Health, University of Alberta</td>
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<td>“Is Health Care in Canada’s North Sustainable?”</td>
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<td>0945 – 1000</td>
<td>Break / Transition Time</td>
<td>Jubilee Ballroom 2</td>
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<td>1000 – 1120</td>
<td>CONCURRENT SESSIONS:</td>
<td>Jubilee Ballroom A, Jubilee Ballroom C</td>
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<tr>
<td></td>
<td>A) Rural and Northern Health Services Delivery I</td>
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<td>B) Innovations in Rural Research Delivery and Strategies</td>
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<tr>
<td>1130 – 1215</td>
<td>Lunch</td>
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### PROGRAM AT A GLANCE
## MONDAY, September 21, 2015 (continued)

<table>
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<tr>
<th>Time</th>
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| 1215 – 1315 | **PLENARY SPEAKER:** Dr. Wendy Duggleby  
*Faculty of Nursing, University of Alberta*  
*“Giving Voice to Rural Perspectives in Navigation Health Research”* | **MODERATOR:** Deirdre Jackman  
Jubilee Ballroom A, Level 2 |
| 1315 - 1330 | Break / Transition Time                           | Jubilee Ballroom B              |
| 1330 – 1450 | **CONCURRENT SESSIONS:**  
A) Vulnerable Populations  
B) First Nations, Metis and Inuit Health | Jubilee Ballroom A  
Jubilee Ballroom C |
| 1450 - 1500 | *Transition Time*                                 |                                 |
| 1500 – 1640 | **CONCURRENT SESSIONS:**  
A) Health Professionals in Rural and Northern Locations  
D) Rural Communities and Health | Jubilee Ballroom A  
Jubilee Ballroom C |
| 1645 – 1730 | **CRHRS Annual General Meeting**                  | Jubilee Ballroom A              |
| 1645 – 1730 | **CARRN Annual General Meeting**                  | Jubilee Ballroom C              |
| 1730 – 1930 | **POSTER VIEWING AND RECEPTION**                   | Jubilee Ballroom B, Level 2     |

## Tuesday, September 22, 2015

<table>
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<tr>
<th>Time</th>
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| 0730 – 1130 | Conference Registration                           | Jubilee Ballroom A  
(Exterior), Level 2 |
| 0730 - 0830 | Breakfast Buffet                                  | Jubilee Ballroom B              |
| 0730 - 0815 | CRHRS Board Meeting                               | Jubilee Ballroom C              |
| 0830 - 1010 | **CONCURRENT SESSIONS:**  
A) Rural and Northern Health Services Delivery II  
B) Environmental and Social Impacts on Rural and Northern Health | Jubilee Ballroom A  
Jubilee Ballroom C |
| 1010 – 1030 | Break / Transition Time                           | Jubilee Ballroom B              |
| 1030 – 1130 | **PLENARY SPEAKER:** Dr. Kristen Jacklin  
*Northern Ontario School of Medicine, Laurentian University*  
*“From Perceptions to Praxis: The Study of Age-Related Dementias with Indigenous Peoples in Canada”* | **MODERATOR:** Kyle Whitfield  
Jubilee Ballroom ABC, Level 2 |
| 1130 – 1150 | **CLOSING REMARKS and PRESENTATIONS:**  
Bonnie Jeffery, CRHRS, Conference Scientific Chair  
Shelley Kirychuk, CRHRS |                                 |

**FULL CONFERENCE PROGRAM**
### SUNDAY, September 20, 2015

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<td>1100 – 1700</td>
<td>Conference Registration</td>
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### WORKSHOPS

#### 1230 – 1430

**“Community-based Health Research With Rural And Northern Communities”**

*Presenters:* Dr. Bonnie Jeffery (University of Regina), Dr. Sylvia Abonyi (University of Saskatchewan), Dr. Sarah Oosman (University of Saskatchewan), Dr. Kyle Whitfield (University of Alberta), Noreen Johns, Community Research Partner (Zelma, SK), TJ Roy, Community Research Partner (Ile-a-la Crosse, SK), Liz Durocher, Community Research Partner (Ile-a-la Crosse, SK)

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<td>1230</td>
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<td>Jubilee Ballroom A, Level 2</td>
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<td>1230 – 1430</td>
<td>“Community-based Health Research With Rural And Northern Communities”</td>
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<td>Liz Durocher, Community Research Partner (Ile-a-la Crosse, SK)</td>
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### 1430 – 1500

**Break**

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<tr>
<td>1430 – 1500</td>
<td>Break</td>
<td>Jubilee Ballroom B</td>
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### 1500 - 1700

**“E-Health Delivery of Services For Rural and Northern Populations”**

*Presenters:* Dr. Elham Emami (Université de Montréal), Dr. Roger Butler (Memorial University), Dr. Gerard Farrell (Memorial University), Dr. Stephen Bornstein (Memorial University), Dr. Nicholas Giraudede (Université de Montpellier, France)

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<td>1500</td>
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<td>Dr. Nicholas Giraudede (Université de Montpellier, France)</td>
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### MONDAY, September 21, 2015

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<td>0845 - 0945</td>
<td>KEYNOTE SPEAKER:</td>
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<td>Dr. Kue Young</td>
<td>Jubilee A, Level 2</td>
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<td>0845 - 0945</td>
<td>School of Public Health, University of Alberta</td>
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<td>“Is Health Care in Canada’s North Sustainable?”</td>
<td>Jubilee A, Level 2</td>
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<td>0945 - 1000</td>
<td>Break / Transition Time</td>
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### FULL CONFERENCE PROGRAM

18
## Concurrent Sessions

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<thead>
<tr>
<th>Time</th>
<th>Room A</th>
<th>Room C</th>
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<tbody>
<tr>
<td>10:00 - 12:15</td>
<td><strong>Jubilee Ballroom A, Level 2</strong></td>
<td><strong>Jubilee Ballroom C, Level 2</strong></td>
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<tr>
<td>10:00 - 10:20</td>
<td><strong>A) RURAL AND NORTHERN HEALTH SERVICES</strong></td>
<td><strong>B) INNOVATIONS IN RURAL RESEARCH DELIVERY AND STRATEGIES</strong></td>
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<td><strong>DELIVERY I</strong></td>
<td><strong>Chair: Juanita Bacsu</strong></td>
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<td>10:20 - 10:40</td>
<td><strong>(20162) Lingley-Pottie</strong> - Strongest Families Institute: Leveraging Technology to Improve Service Access</td>
<td><strong>(20171) Usuba/Young</strong> - Promoting Sustainable Research in Aboriginal Communities using a Tablet Application and REDCap</td>
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<td>10:40 - 11:00</td>
<td><strong>(20168) Harnagea</strong> - Primary Oral Health Care: Perceptions of Rural Primary Health Care Providers</td>
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<td></td>
<td>Dr. Wendy Duggleby</td>
<td>Deirdre Jackman</td>
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<td>“Giving Voice to Rural Perspectives in Navigation Health Research”</td>
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<tr>
<td>13:30 - 13:50</td>
<td><strong>A) VULNERABLE POPULATIONS</strong></td>
<td><strong>B) FIRST NATIONS, METIS AND INUIT HEALTH</strong></td>
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<td><strong>Chair: Silvia Vilches</strong></td>
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<td><strong>(20151) Bacsu</strong> - Examining Rural Older Adults’ Independence</td>
<td><strong>(20169) Salehyar</strong> – Children’s Oral Health in a First Nations Community: A Qualitative Case Study</td>
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<td>14:30 - 14:50</td>
<td><strong>(20174) Young</strong> - Relationship Between the Global Health Rating (GHR) and the Aboriginal Children’s Health and Well-being Measure (ACHWM)</td>
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<td>(20187) MacLeod - Where do Nurses in Rural and Small Town Canada Come from?</td>
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<td>(20159) Gaber - Oral Health-related Quality of Life: Does Rurality Matter?</td>
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<td>1520 – 1540</td>
<td>B) <strong>RURAL COMMUNITIES AND HEALTH</strong>&lt;br&gt;Chair: KYLE WHITFIELD</td>
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<td>(20166) Pavloff - The Impact of Work-related Travel on Registered Nurses in Rural and Remote Canada</td>
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<td>(20184) Novik, Bacsu - Social Isolation and Rural Seniors: Evaluating the Friendly Visitor Approach</td>
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<td>(20195) Jackman, Janke – Interprofessional Rural Preceptorship with Nursing and Medical Students: Working Together</td>
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<td>(20199) Vilches - Connecting the Disconnected: Key lessons from Community-based Projects for Addressing Mental Health and Substance Use Issues</td>
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<td>0830 – 1010</td>
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<tr>
<td>0830 – 0850</td>
<td>(20154) Shapiro - The Future of Telemedicine: Divergent Directions</td>
<td>(20160) Horrigan - Quality of Work-Life Factors Associated with Nurses’ Stress who Work in Northeastern Ontario Urban, Rural and Remote Hospitals</td>
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<td>(20156) Cohen - Do Rural Patients in Ontario Under-utilize Preventive Care for Myocardial Infarction?</td>
<td>(20179) Maal-Bared - Challenges and Considerations in the Selection of Domestic Wastewater Treatment Technologies in Urban, Rural and Remote Communities</td>
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<td>(20173) Grovers - Reaching Parents their Way ... with Triple P (Positive Parenting Program)</td>
<td>(20165) Moffitt - Narratives of Northern Community Response to Intimate Partner Violence Realized through Focus Group and Descriptive Methods</td>
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<td><strong>PLENARY SPEAKER:</strong></td>
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<td></td>
<td>Dr. Kristen Jacklin</td>
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<td>Northern Ontario School of Medicine, Laurentian University</td>
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<td></td>
<td>“From Perceptions to Praxis: The Study of Age-Related Dementias with Indigenous Peoples in Canada”</td>
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<td>1130 – 1150</td>
<td><strong>CLOSING REMARKS and PRESENTATIONS:</strong></td>
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<td>Bonnie Jeffery, CRHRS, Conference Scientific Chair</td>
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<td>Shelley Kirychuk, CRHRS</td>
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MAPS - EDMONTON

https://www.google.ca/maps/@53.4824512,-113.4937241,17z
20161
**The Perceptions of Women in Northern Ontario about their Reproductive Health Care**

*Lisa Morgan, Lecturer, Department of Midwifery, Laurentian University; PhD student, School of Rural and Northern Health, Laurentian University*

There is a documented need in the literature for an increased understanding of the elements that contribute to satisfaction in health care for women (Weisman, Rich, Rogers, Crawford, Grayson & Henderson, 2000). Also, under the current climate of fiscal restraint, particularly in health care, there exists interest in examining alternatives for care while maintaining quality (Ministry of Health and Long-Term Care, 2010, Drummond, 2012). Client satisfaction is a multidimensional concept, relating to both technical and interpersonal aspects of care, and the amenities of care such as the physical environment (Donabedian, 1988).

Women in Northern Ontario answered survey questions and agreed to be interviewed in order to address their experiences and preferences with their current reproductive health care. The framework adopted for this research was the Hierarchical Model of Health Service Quality which represents a new conceptualization of health care service quality, as measured from a consumer’s perspective, in a way that predicts client satisfaction and behavioural intentions (Dagger, Sweeney, & Johnson, 2007).

Women report overall good health and adequate access to services but still indicate a desire for change in the way reproductive health care, is provided in Northern Ontario. More female practitioners and more health care providers able to provide reproductive health care would increase the options available to women. According to the Hierarchical Model of Health Service Quality (Dagger et al., 2007), if women’s perceptions of the quality of care that they are receiving were to improve, that could result in increased satisfaction with the services provided, informing behavioural intentions to engage in recommended care.

20162
**Strongest Families Institute: Leveraging Technology to Improve Service Access**

*Dr. Patricia Lingley-Pottie, President and COO, Strongest Families Institute; Scientist, IWK Health Centre; Assistant Professor, Dalhousie University*

**BACKGROUND:** Pediatric mental health problems are common but many do not receive timely, evidence-based intervention. Gaining access to services can be difficult for rural families living in rural regions. When families do gain access they can encounter insurmountable barriers, resulting in premature termination of services. Untreated conditions exacerbate over time, tracking into adulthood.

**OBJECTIVES:** Strongest Families Institute (SFI) is a not-for-profit organization established to disseminate evidence-based, distance child mental health programs. SFI’s distance system of care is an example of successful integration of innovative programs into practice, following clinical trial completion. Strongest Families was designed to remove barriers to care by harnessing the advantages of technology and a family-centred model approach.

**METHODS:** Proven in randomized trials, the Strongest Families programs target problems such as behavior, anxiety and nocturnal enuresis. The skill-based curriculum is delivered to families in the comfort and privacy of their own home at convenient times (i.e., days, evenings, nights). Families receive written materials (smart web-site interface or handbooks), skill demonstration media (videos and audios), and weekly telephone coaching.
The ehealth system called IRIS (Intelligent Research and Intervention Software) houses the coaching scripts that interact and inform the client interface so that care is customized to meet the families’ needs. Outcome is consistently measured. Referring sources receive graphically depicted outcome progress letters at mid and end of intervention.

RESULTS: SFI outcomes are strong with 85% success in overcoming the presenting pediatric problem, strong impacts on child functioning and academic progress, and a positive impact on other issues (e.g., bullying; victimization). Results show a significant impact on parental mood scores and family functioning. Attrition rates are consistently below 10% and families report high satisfaction with services received.

CONCLUSIONS: Helping thousands of families each year, SFI’s distance services provide timely help to families when and where they need it. It is a cost-effective access solution that can bridge the gap for families living in rural regions.

20168
Primary Oral Health Care: Perceptions of Rural Primary Health Care Providers
Hermina Harnagea1, Yves Couturier2, Lise Lamothe1, Elham Emami3
1School of Public Health, Université de Montréal; 2School of Social Work, Université de Sherbrooke; 3Faculty of Dentistry, School of Public Health, Université de Montréal

Integration of oral health into primary care could generate benefits for oral health outcomes and improve dental services in rural and remote areas. Although integrated care is attracting considerable attention of health care policy makers, little is known about the health care organizations’ readiness for primary oral health care. Insights into the perspectives of primary health care providers of rural origin will inform about development and implementation of an integrated oral health care pathways. Therefore, the objective of this study was to explore the perceptions of Quebec primary health care providers in regard to primary oral health care.

Using a qualitative approach based on emancipatory action research model, we conducted in-depth, semi-structured, face to face interviews with primary care providers and health care managers (n=29) from rural Quebec. Informants were purposively sampled for maximum variation. Data collection and data analyses were conducted concurrently and continued until all attributes were clearly defined. Qualitative data analysis included interview debriefing, transcript coding, data display, and interpretation. Data was analyzed manually and by using Atlas-ti software.

A number of themes emerged from the qualitative preliminary analysis: interprofessional conflicts of perspectives, variation in oral health knowledge and education, community needs, and organizational aspects. These preliminary results indicate that the rural primary care structures need to be better informed about the existing models of integrated oral health care.

20193
Rural Innovation in Transport: An Evaluation of the Interior Health High Acuity Response Team (HART) Program
Jude Kornelsen, PhD, Associate Professor and Stefan Grzybowski, MD, Professor
Department of Family Practice, University of British Columbia

BACKGROUND: The HART Program has been in place BC’s Interior Health Authority for four years – transporting approximately 1200 patients per year – with broad systems support. The program began in response to challenges transporting patients who were in critical condition from remote communities to definitive care and is based on care teams of ICU nurses and Respiratory Therapists.

METHODS: This mix-methods study examined the effectiveness of the HART program through retrospective chart audits and qualitative interviewing. Chart audits were done of patients transported by HART compared to patients who met the criteria but due to lack of availability of the HART team were transported through regular ambulance transport (2010-2014). Specific outcomes evaluated include demographic information (number of patients transported by clinical designation) and physiological impact (i.e. stability of patients in HART care, mortality, other health outcomes). In parallel, 106 qualitative interviews were done with care providers and administrators in 12 rural communities to assess their experiences of the program and its role in sustaining rural practice.

RESULTS: In Interior Health, there are approximately 1200 HART Transports per year, for a range of high acuity conditions, including access to advanced cardiac care, sepsis, trauma (including MVAs) and neurological symptoms. Quantitative results suggest transport by HART leads to good patient outcomes.
Overall, participants from all key-stakeholder groups expressed a high degree of satisfaction with the HART program. Satellite communities expressed the benefit of the program in service sustainability and the advantage of educational outreach. Challenges included delays in deployment and tension between the HART Team Organizational Structure and the BC Ambulance Services Structure.

DISCUSSION AND CONCLUSION: Findings from this study suggest the High Acuity Response Team is an innovative solution to meet the transport needs of rural residents. Extensive qualitative interviewing and retrospective chart audits demonstrate its efficacy and lead to suggestions for potential system level improvements.

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#### 20155

**Reaching Rural: A Proposed Cost Effective Survey Method**

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

In recent years it has become increasingly difficult to survey rural populations. With the increased prevalence of households having only cell phones, which do not have a centralized listing, and lack of a home phone number, techniques such as random digit dialing, which in the past of been cost-effective, may no longer be a viable options to capture a representative portion of the population. Likewise the cost of mailing surveys, which include postage paid responses, have become prohibitive as the cost of postage has recently increased.

In this presentation, I will propose an alternate method to gathering health related survey data from rural populations, and a cost effective method for gathering comparison data. Using commercially available tools provided by Canada Post, it is possible to target rural communities across Canada using a number of variables, such as income, education, age, and so on, broken down prevalence on postal delivery routes in particular communities. This means that the comparison of various communities using a survey tool is not only cost-effective in terms of mailing, but can be an easy way to gather data in rural and remote areas. By using an unaddressed invitation to participate, such as a postcard sent to a particular route, anywhere in Canada serviced by Canada Post, and have participants respond to the request for the survey by phone, Internet, or other means, the cost of a pilot research project could significantly minimized. The cost savings of this proposed method could be as high as 80-90% over the use of conventional mailing, excluding other, often prohibitive costs, such as travel to rural and remote areas. This method will allow for the comparison of various small communities with the same demographic or geographic profile across the country. I believe this approach will both enable researchers to have a higher response rate, and be able to perform comparisons which would otherwise not be economically feasible in various Northern and rural communities across Canada.

#### 20171

**Promoting Sustainable Research in Aboriginal Communities using a Tablet Application and REDCap**

*Koyo Usuba*¹, *Nancy L. Young*¹, *Mary Jo Wabano*², *Debbie Mishibenijima*², *Mélanie Trottier*¹, and *Paul Pomerleau*¹

¹Laurentian University; ²Wikwemikong Health Centre

OBJECTIVES: Evidence-informed health care is common in mainstream communities, but has not reached many First Nations due to barriers in gathering local data to inform decisions. The Aboriginal Children’s Health and Well-being Measure (ACHWM) was developed to gather information on children’s health on-reserve. The objective of this presentation is to report on innovations that were applied to the ACHWM to promote sustainability.

METHODS: The research team worked with a programmer and a First Nation to develop a process for implementing the survey in a way that would support the needs of the community.
Key requirements were that it: eliminate manual data entry; be easy to use for children; support completion by participants with low literacy levels; full functionality in the absence of internet access; and secure data storage with shared access at distant sites.

RESULTS: These requirements were met through the development of a custom Android application (app). This app was appealing to the children, was able to address low literacy via the text-to-speech function, and allowed children to directly input their responses. The app uses a store-and-forward process, and communicates with a REDCap (Research Electronic Data Capture) database for secure storage and to ensure accessibility of data to members of the research team. In addition, the app allows us to immediately assess risk based on the children’s response patterns, and ensures timely referrals to a local mental health worker. This process has been implemented in 5 diverse communities successfully.

CONCLUSIONS: The development of a tablet ACHWM app with REDCap linkage has produced a feasible process for asking Aboriginal children about their health, in a way that is fun and supports low literacy. This process is sustainable, because there is no manual data entry, yet there is secure data storage and access. The ability to immediately recognize children at-risk is a critical innovation that should become a best practice standard for health surveys.

20177

New Evidence-Informed Opportunities in 8 Aboriginal Communities: Lessons Learned by Sharing the Aboriginal Children’s Health and Well-Being Measure (ACHWM)

Nancy L. Young¹, Mary Jo Wabano², Karen Baker-Anderson³, Leslie McGregor⁴, Shannon Blight⁵, Roger Beaudin⁶, and Tricia A. Burke⁴

¹Laurentian University; ²Wikwemikong Health Centre; ³Ottawa Inuit Children’s Centre; ⁴Whitefish River Health Centre; ⁵Weechi-it-te-win Family Services; ⁶M’Chigeeng Health Centre

OBJECTIVES: Aboriginal people make up an important sector of the population in rural Canada and particularly in Northern Ontario. Understanding how to effectively engage Aboriginal communities is important to many rural health researchers. This presentation will share the lessons learned from our community-university partnerships that have engaged many distinct communities.

METHODS: Our research team is co-led by an academic researcher and a First Nations Health Director. Together this team has engaged in collaborative research with eight Aboriginal communities: five First Nations, one child welfare agency, one Inuit agency and one Aboriginal Health Access Centre. Our engagement with each community ranged from 6 months to 5 years. In five of these communities, children and parents were directly involved via a series of individual interviews to determine the relevance of the ACHWM to their community.

RESULTS: We learned that identifying shared goals was essential and that these goals must be specific to the local context. A research agreement was tailored to ensure the needs of all partners were addressed. Once this was done we were able to work together to achieve these goals. The ACHWM improved in subtle but important ways, because of the insights offered by children. This process resulted in a stable version of the ACHWM that is now relevant across diverse communities. Key lessons were learned in all communities.

CONCLUSIONS: Collaborative research with Aboriginal communities requires time and extensive discussions to tailor the process to meet local needs. It is inappropriate to “control” the process of implementing research interventions in Aboriginal communities in collaborative research. The lack of control renders the results less rigorous according to scientific standards, but more relevant to meet local needs and empower local health leaders. The latter is arguably more important.

20178

From Their Perspective: Using Qualitative Methodologies to Explore Effective Health Delivery Strategies in Northern Ontario

Deborah Cohen¹, Jean Harvey¹, Anne Sebold¹, Tai Huynh², and Jen Recknagel²

¹Canadian Institute for Health Information; ²Open Lab, ON

OBJECTIVE: The availability of data that accurately reflects the contextual factors associated with health and healthcare in the North represents a key challenge for healthcare decision makers in Canada.
This session describes a unique qualitative research methodology to examine key contextual and operational elements of an innovative health delivery strategy - a primary care mobile van program that brings primary care and other health and wellness services to ten communities north of Thunder Bay, Ontario.

METHODS: Qualitative interview data along with still-photo and video-based data were captured to study the process, culture, and context of an innovative program of the NorWest Community Health Centre in the district of Thunder Bay. A semi-structured interview guide examined the details of the rural and remote contexts and corresponding social and clinical needs of the population; the model of care; and strategies for operationalizing the program for vulnerable populations. A thematic analysis of the data collected by the research team explored the ways in which rural and remote communities operate in unique socio-economic, cultural and environmental settings and the value that comes from implementing programs that respect these community characteristics.

RESULTS: This multimedia ethnographic approach ‘gives voice’ to clients, staff and community leaders. It showcases a method for overcoming information gaps related to interpreting the meaning, relevance and applicability of quantitative data findings. This approach is an important tool for rural and remote health researchers as it encourages the collection and use of critical contextual data to provide more fulsome evidence to support decision making among healthcare leaders.

CONCLUSION: Research methods that go beyond traditional quantitative statistics can address issues of limited data availability and the critical importance of context in the North. This case study highlights the value of qualitative approaches to study population health needs and the realities of healthcare delivery in unique northern communities.

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20151
Examining Rural Older Adults' Independence
Juanita Bacsu¹, Bonnie Jeffery², Nuelle Novik², Marc Viger³, Shanthi Johnson⁴, and Sylvia Abonyi⁵

¹Community Health and Epidemiology, University of Saskatchewan; ²Faculty of Social Work, University of Regina; ³Blairemore Medical Clinic; ⁴Faculty of Kinesiology and Health Studies, University of Regina; ⁵Community Health and Epidemiology, University of Saskatchewan

Independence is a key component of rural older adults' ability to age in place. However, there is a paucity of research that examines what independence means to rural seniors and what factors support independence within a rural context. Existing policies often have an urban-centric focus which has resulted in the silencing of rural seniors’ needs. Compared to urban seniors, rural seniors often face unique challenges in relation geographic remoteness, inadequate public transportation and limited health and support services. The purpose of this study was two-fold: 1) to identify rural older adults' perceptions and meanings of independence; and 2) to examine the supports that facilitate rural seniors’ independence and ability to age in place over time.

Guided by values of community-based participatory research, data was gathered through in-depth, semi-structured interviews with approximately 40 seniors aged 65 years and older living in the rural communities of Watrous, Young and Wolseley, Saskatchewan, Canada. Through thematic analysis, this study found that rural older adults’ conceptualization of independence extended significantly beyond physical health to include key factors such as having decision-making freedom to being self-sufficient. Rural seniors identified a range of critical factors to support their independence such as having access to safe and affordable seniors’ housing to using online technology to augment social support with family and friends. By focusing on rural older adults’ perspectives, this study has implications for multiple stakeholders in the development of programs, policies and services to support seniors’ independence in rural communities.

20157
A Historic Glance at the Influence of Policy on the Health of Ontario Francophone
Francophones in Ontario are plagued by many health inequalities compared to the Anglophone majority including poorer diets and inactive lifestyles and higher rates of chronic conditions such as obesity, asthma and, hypertension. Francophones also tend to have lower levels of education and a greater likelihood of residing in rural areas. It has been suggested that a lack of access to French language medical services may contribute to these stated health disparities. For instance, a recent study found that although the number of physicians who could provide services in French in Ontario is surprisingly large their geographic distribution is not suited to meet the needs of communities with large Francophone populations. The present work will further explore how historical events and the present policy landscape in Ontario influence health services for Francophones, particularly with respect to physician services. For instance, we will examine how basic human rights, such as those promised in the Canada Human Rights Act and the Canadian Charter of Rights and Freedoms, along with health related policies such as those described in the Medical Care Act and the Canada Health Act have instilled certain expectations among Francophones, namely equal access to health care services. However, the gradual nature in which French rights have developed in Ontario and, the fact that these rights have been limited to designated areas and the ambiguous language in which many were written, has led to a fragmented availability of French language services across the province, particularly in the realm of health care. Adding to this complexity, the professional autonomy of physicians is such that it is not be possible to mandate them to offer services in French and it is even more challenging to force French speaking physicians to practice in Francophone communities. Furthermore, efforts to recruit physicians to practice in rural and northern parts of the province, where large groups of Francophones reside, have been largely unsuccessful. As a result, we find a misalignment between the expectations of the francophone population and the availability of French language health services, which may have contributed to the poor health outcomes seen in Francophones today.

20181
Retiring Well: Promoting Awareness of Health-Related Costs in Aging among Southwestern Ontario Rural Communities
Feng Chang1,2, Kristi Butt1
1School of Pharmacy, University of Waterloo; 2Gateway Centre of Excellence in Rural Health

OBJECTIVES: Rural Canadians face unique health challenges, including higher incidences of chronic disease, lower incomes, and reduced access to care. With studies demonstrating a positive correlation between wealth and health, this project aims to identify gaps in awareness of health-related costs in aging and financial knowledge in a rural population, and develop an education program to address identified gaps.
METHODS: Phase I: Thirty rural residents aged 45-70 completed the Canadian Financial Capability Survey, a questionnaire, and a semi-structured interview. Phase II: Information was gathered by reviewing relevant literature and soliciting input from healthcare professionals, community partners, and rural dwelling seniors to create an education program. Phase III: Seniors in rural Southwestern Ontario were recruited through community partners to partake in the program. Participants were asked to provide feedback on the program by completing a survey.
RESULTS: Phase I: Participants scored at or above the national average for financial knowledge, but were less familiar with coverage provided by benefit plans and relevant costs. Self-employed individuals, rural women, and those with lower incomes were identified as groups in particular need for additional information. Phase II: An education program consisting of a presentation and information package was developed. The program focused on five domains (aging, chronic diseases, medications, sources of coverage, and community resources). Phase III: The program was delivered to 487 individuals in 17 communities. Approximately 30% of attendees completed the survey. Most respondents were female, between the ages of 65 and 79. Overall, respondents found the program helpful and the information package useful.
CONCLUSIONS: A targeted education program focusing on promoting awareness of health-related costs in aging among rural residents was well attended and positively received, suggesting a need for such information. Ongoing delivery and
sustained updates are worthwhile considerations.

20169

Children’s Oral Health in a First Nations Community: A Qualitative Case Study

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OBJECTIVES: To better understand how a First Nations community perceived their children’s oral health: their experienced and perceived barriers and facilitators related to accessing dental care; and suggestions for achieving optimal oral health for their children.

METHODS: In this qualitative case study, participants were purposively selected from a First Nations community. Data was collected through seven individual interviews with the community key informants and two focus groups involving 18 parents/care givers of young children. The interviews were recorded and transcribed verbatim. An inductive thematic analysis was employed, using NVivo software. Interviews continued until saturation was achieved.

RESULTS: Perceived oral health status of the children, available resources, and barriers to optimal oral health were three identified categories. The overall children’s oral health status was mostly based on anecdotal claims. While access to oral health information seemed to exist through different channels, preventive care was reported to be available for only Status children through a federally funded program. There seemed to be a lack of proper communication between the assigned service providers and community members. Inaccessibility to dental care was one of the main concerns. Poverty and remote community location were two major barriers that limit access to dental care. Lack of trust was expressed due to residential schools and past traumatic dental experiences.

CONCLUSIONS: Active engagement of community members in any program requires that members be given a voice as well as some ownership of the process. Health professionals should work with the community to empower them for the upcoming changes. Community development efforts should complement rather than replace the systematic changes required to promote the oral health of Aboriginals. There is a need for a screening exam for preschooler. The oral health of First Nations children especially preschoolers urgently needs to become a higher priority within communities, research-funding agencies, and government policy related to health spending and promotion.

20180

Partnership for Prevention: Integrating Preventive Oral Health Measures into Pediatric Primary Care for First Nations Children

Maryam Amin\(^1\), Maryam Elyasi\(^2\), Daniela Migliarese Isaac\(^2\), and Lola Baydala\(^2\)

\(^1\)Department of Dentistry, Faculty of Medicine and Dentistry, University of Alberta; \(^2\)Department of Pediatrics, Faculty of Medicine and Dentistry, University of Alberta

Dental decay remains the most common chronic childhood disease. The burden of poor oral health and its associated costs are considerable and can compromise children’s overall well-being and quality of life. Because of the challenges associated with securing a young child’s cooperation and the severity of their dental disease most children receive comprehensive oral rehabilitation under general anesthesia. In fact, dental surgery is the most common surgical treatment for children in many Canadian hospitals with an annual cost of $22 million each year.

Compared to the general Canadian population, Indigenous children and youth reported poor oral health and a higher frequency of dental pain. The prevalence of tooth decay among Indigenous children is 3-5 times higher than the national
average in Canada. 86% of preschoolers and 90% of schoolchildren suffer from dental decay. Indigenous populations are less likely to engage in prevention behaviours because of fewer health information resources and inadequate dental care providers in remote areas. As a result, on-reserve First Nations children are two times more likely to experience dental decay than their off-reserve counterparts. Day surgeries were also reported to be 8.6 times higher for Indigenous children. Even more troubling is the many Indigenous children who receive repeat dental surgeries because of relapse. Despite an increase in availability of prevention interventions, the number of reported cases of dental caries in Indigenous children continues to increase. This may be in part because of poor access to available programs. Therefore, integrating preventive oral health measures into routine well-child checkups may be an efficient and practical way to prevent dental disease in high risk populations.

The division of Pediatric Dentistry and General Pediatrics in the Faculty of Medicine and Dentistry at the University of Alberta partnered to incorporate a dental screening exam and fluoride varnish application into an existing pediatric primary care clinic in a First Nations community in central Alberta. In this presentation, the process of development, training, and implementation of the intervention and ways to assess the efficacy of the intervention will be discussed.

20198

Associations Between Respiratory Outcomes and Housing Factors in Two Saskatchewan First Nations Communities

Shelley Kirychuk¹, Donna Rennie¹, Chandima Karunanayake¹, Joshua Lawson¹, Eric Russell¹, Jeremy Seeseequasis², Roy Petite², Daisy Bird², Frank Roberts², Punam Pahwa¹,³, Sylvia Abonyi³, Jo-Ann Episkimestone⁴, James A Dosman¹, and the First Nations Lung Health Project Research Team

¹Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan; ²Community member; ³Community Health and Epidemiology, University of Saskatchewan; ⁴Indigenous Peoples' Health Research Centre, University of Regina

INTRODUCTION: Housing factors such as crowding, mold, environmental tobacco smoke, humidity, and endotoxin are risk factors for development of respiratory conditions. An assessment of the relationships between housing factors and respiratory health in two rural First Nations communities in Saskatchewan was undertaken. Members of the communities including health leaders, elders, housing managers and residents were active in the process and integral to the outcomes.

METHODS: Adults from households in two rural Saskatchewan First Nations communities completed respiratory questionnaires, lung function studies and skin prick testing. Environmental assessments included a housing survey and floor dust collection. Floor and air samples were assessed gravimetrically and for endotoxin and beta 1-3 glucans.

RESULTS: In total 308 people from 144 homes had home environmental assessments and completed the respiratory questionnaire and clinical assessments. Of these 31.3% of households reported 6 or more people living in their home, and 41.7% of households had one or more persons who smoked in the house. There were 44.4% of households that indicated the house was in need of major repairs, and 38.9% in need of minor repairs. Damp housing conditions were reported in 49.3% of households and 52.1% (75/144) of households reported having a frequent Mildew/Moldy/Musty smell in their home. For the 244 (79%) people who indicated ‘ever having a wheeze’, there was no significant association with musty/moldy smell in the house compared to no smell. In persons who said “Yes” to ever having a wheeze and “Yes” to having a moldy/musty smell, there was a significant association (p=0.006) between always having a musty/moldy smell in the house compared to a musty/moldy smell less than 6 months/year. Results were discussed with band council and band members.

CONCLUSIONS: Always having a moldy/musty smell in the home was associated with risk of wheeze. Addressing housing is a priority in these communities and means by which the community is working to improve housing are numerous including decreasing the incidence of smoking in the home, addressing mold issues and community education and development.

20174

Relationship Between the Global Health Rating (GHR) and the Aboriginal Children’s Health and Well-being Measure (ACHWM)
Nancy L. Young¹, Mary Jo Wabano², Koyo Usuba¹, Debbie Mishibinijima², and Mélanie Trottier¹
¹Laurentian University; ²Wikwemikong Health Centre

OBJECTIVES: In Northern Ontario 26% of children are Aboriginal. These children face unique healthcare challenges. They are spread across 87% of the province’s land mass, with <1% of the population density of southern Ontario. They have little community-level data to inform their healthcare programming. The ACHWM addresses this gap. The ACHWM was developed for Aboriginal children, and includes 4 components of health (spiritual, emotional, physical and mental quadrants). The GHR is one of the most frequently used measures in population health. However it may not include all components of health important to the Aboriginal population. The aim of this study is to assess the relationships between the GHR and the 4 components of health measured by the ACHWM.

METHODS: Children and youth from one First Nation were recruited for this study. Each child completed the GHR and ACHWM independently. The relationships between GHR and ACHWM was assessed with a Spearman correlation. The detailed relationships between the GHR (dependent variable) and the 4 quadrant scores of the ACHWM (as independent variables) were assessed using a stepwise Ordinal Logistic Regression (OLR) model.

RESULTS: A total of 208 children (54% girls; mean age 13.9; SD=3.9) completed the study between 2013 and 2015. In this group, 41.8% reported excellent or very good health, and the mean ACHWM score was 73.6 (SD=11.4). The GHR was moderately related to the ACHWM summary score (rho = 0.44, p<0.0001). The stepwise OLR showed that only emotional and physical quadrants had significant relationships with the GHR.

CONCLUSIONS: The ACHWM was moderately correlated with the GHR; however, it appears that children may not consider spiritual and mental quadrants when asked to rate their “health”. Since spirituality is an important component of health and well-being in Aboriginal populations, it is important to ask questions that reflects this component. Thus the ACHWM provides additional important information on the health of Aboriginal children.

MONDAY, SEPTEMBER 21, 2015
Jubilee Ballroom A, Level 2
A) Health Professionals in Rural and Northern Locations
Chair: Shelley Kirychuk

20187
Where Do Nurses in Rural and Small Town Canada Come from?
Martha MacLeod¹, Norma Stewart², Judith Kulig³, Leana Garraway⁴, and Nadine Meroniuk⁵
¹School of Nursing, University of Northern British Columbia; ²College of Nursing, University of Saskatchewan; ³Faculty of Health Sciences, University of Lethbridge; ⁴Rural and Northern Practice Research Program, School of Nursing, University of Northern British Columbia; ⁵School of Health Sciences, University of Northern British Columbia

International studies contend that health professionals with rural backgrounds are more likely to practice in rural areas. The evidence is strong for physicians, but is not as robust for nurses. In Canada, a growing number of studies address the retention of rural and remote nurses, but few studies have focused on factors that contribute to the recruitment of nurses to rural or remote practice. In this presentation, we will describe the nursing workforce in rural and remote Canada, and will examine factors contributing to nurses’ recruitment.

The national survey of the Nursing Practice in Rural and Remote Canada II project, examines the roles, work settings and practice modes of Registered Nurses (RNs), Nurse Practitioners (NPs), Licensed or Registered Practical Nurses (LPNs), and Registered Psychiatric Nurses (RPNs) in rural and remote communities across the country. This cross-section survey was sent to over 9,000 RNs, NPs, LPNs and RPNs in 2014-2015 with the assistance of the nursing regulatory bodies in every province and territory in Canada.

The survey data will be available in early September. For this presentation, preliminary findings will be examined in order to describe characteristics of the nursing workforce. In addition, findings on variables related to the size of the community
in which the nurses grew up and what drew them to work in the community will be explored in relation to type of nurse (RN, NP, LPN, RPN). The presentation will conclude with a discussion of the early findings, and implications for the recruitment of nurses to rural, remote, and small town Canada.

20166
The Impact of Work-Related Travel on Registered Nurses on Rural and Remote Canada
Michelle Pavloff, Norma Stewart, Mary Ellen Andrews
College of Nursing, University of Saskatchewan

OBJECTIVE: To describe and interpret the impact of work-related travel on Registered Nurses (RNs) in rural and remote Canada.

METHOD: Using interpretive description, open-ended survey questions on work-related travel were analyzed from a multi-method national study (2001-2004) entitled The Nature of Nursing Practice in Rural and Remote Canada. Stratified random sampling was used to select rural RNs from the provinces. All RNs in the territories and outposts were included in the sample. The cross-sectional survey used a mailed questionnaire with persistent follow-up (68% response rate). From the 3,933 survey respondents, 1603 RNs (40.8%) responded to the question about the impact of travel to work on their lives; 1018 RNs (25.9%) responded to the question about the impact of travel for work. Other RN respondents left these open-ended questions blank. The phrases and sentences used by the respondents were coded into categories and analyzed using interpretive description.

RESULTS: The findings were separated into two sections. The first section describes weather and road conditions that impact travel for work. The second section describes how travel to work impacts the nurse along eight themes. Five of these themes related to the negative impact of travel to work on the lives of the respondents: fatigue and elongated days, loss of personal/family time, expense, stress and health concerns, and safety concerns. Three positive themes found were: beneficial to health, enjoyable, time to prepare/wind down. Travelling to and for work has a significant impact on the personal health, well-being, and happiness of rural and remote RNs. For many rural and remote Canadian RNs, the implications of travel affect every aspect of their lives.

CONCLUSION: Quality of work life and risk management are two areas that are concerning for rural and remote RNs who are affected by work related travel. The stress, fatigue, and health concerns of rural and remote Canadian RNs who travel, is an area that deserves further research and support from policy makers and stakeholders.

20195
Interprofessional Rural Preceptorship with Nursing and Medical Students: Working Together
Deirdre Jackman¹, RN, PhD; Olive Yonge¹, RN, PhD; Jim Cockell², BA Hons, MA; Florence Myrick¹, Jill Konkin³, MD; and Fred Janke³, MD
¹Faculty of Nursing, University of Alberta; ²University of Alberta; ³Department of Family Medicine, University of Alberta

Traditionally, in health science education, preceptorship has provided clinically relevant learning to enhance a student’s ability to practice proficiently within their own profession(s). With increased patient complexity there is a growing need to nurture interprofessional/collaborative practice exposure and experience for health professional learners. In rural/remote practice settings, where complex practice environments exist, this requirement is especially relevant. Rural research indicates the health professionals most required for rural practice are registered nurses (RNs) and physicians. Evidence concurrently suggests that rural RNs and physicians have an especially strong team ethos, translating into safer patient care, improved patient outcomes, enhanced environments, decreased workloads, human and fiscal cost benefits, and increased efficiency.

The goal of this unique rural preceptorship pilot was to implement and evaluate a clinical teaching/learning model which created formal, interprofessional (IP) activities, designed for nursing and medical students to enhance collaboration, teamwork and learning. Four educational modules related to 1) interprofessional learning, 2) roles and responsibilities, 3) the rural context; and 4) the role of technology were provided during the practicum.
The purpose of this study was to generate knowledge regarding interprofessional rural preceptorship development and enhancement. The research question was, “What is the psychosocial process involved in a rural preceptorship that is specifically designed to foster interprofessional engagement of nursing and medical students in the clinical setting?” Grounded theory, specifically Glasarian, was the method chosen for analysis. Findings revealed the overall theme to be committing to IP learning in the rural setting, with the sub themes of a) seeking opportunities to promote authentic IP learning, b) protecting the time in order to attend to IP practice, c) focusing on the patient in a rural teamed approach. These findings suggest that formal, interprofessional experiences in rural environments are welcomed and provide nursing and medical students the ability to authentically engage in collaboration.

20196
Specialists’ Perceptions of General Practitioners with Enhanced Surgical Skills in Rural Canada: A Qualitative Inquiry
Jude Kornelsen¹, PhD; Stuart Iglesias¹, MD; Nadine Caron², MD, and Shiraz Moola³, MD, Obstetrician
¹Department of Family Practice, UBC; ²Department of Surgery, UBC; ³Kootenay Lake Hospital, BC

BACKGROUND: In British Columbia – and across Canada – we have seen the precipitous closure of many rural surgical services, leading, in some instances, to deteriorating population health outcomes and quality of care delivered. This is occurring within a policy context that recognizes the benefits of services “closer to home” balanced with the need for fiscally responsible planning. In some smaller rural communities surgical services are provided locally by one or more General Practitioner with Enhanced Surgical Skills (GPESS), caesarean section often being the backbone to their procedural skills. The collaboration between GPESS and their specialist colleagues is essential to ensure best patient care. Despite this, however, an efficacious model of inter-professional mentorship and practice has not been established in a Canadian context.

METHODS: This naturalistic, qualitative study used in-depth interviews to explore the attitudes and beliefs of Obstetrician Gynaecologists and General Surgeons in Western Canada towards GPESS. Purposive sampling through colleges and associations was used to recruit 42 participants. Transcripts were analysed using a pragmatic thematic analysis methods.

FINDINGS: Likely due to the self-selection of the sample, the majority of participants recognized the need for GPESS in sustainable rural surgical services. Areas of contestation arose regarding the disparate length of training when compared with board certified General Surgeons and perceptions of appropriate skill set.

DISCUSSION: Collaboration and integrated practice is key to productive inter-professional relationships between GPESS and their specialist colleagues. Based on best practices from other jurisdictions, such relationships can be structured within a networked model of rural surgical care where each rural surgeon, whether specialist or generalist, is nested within a supportive community of practice that includes his or her own colleagues (both generalist and specialist), his or her mentors, teachers, and those who accept referrals and patient transfers. Participants in this study described the nuances of such a model of practice and necessary conditions for implementing the model.

20167
Northern Community Development Competencies: Professional Development for Frontline Public Health Workers
Kerry Lynn Durnford, BSN Program School of Health and Human Services, and Pertice Moffitt
Aurora College, Aurora Research Institute

Knowledge, skills and abilities in community development are essential in rural and remote practice settings. An assessment of Northern community development competencies among health care providers and employers in the Northwest Territories and Nunavut identified strengths and learning needs. The three northern colleges, Yukon College, Aurora College and Nunavut Arctic College, funded by the Public Health Agency of Canada, engaged in a three year pan-territorial project to assess community development learning needs, identify gaps, develop and pilot a professional development module. A self-paced community development module with a variety of learning activities was created to assist participants to develop skills in the areas of advocacy and community engagement, problem solving, power relations and conflict resolution, and in use of a variety of community development tools. A pan-territorial pilot of the module revealed a satisfaction with the relevant northern based material. Many
participants were less satisfied with the accessibility of the online resource material. Adaptations have been made respecting the context of technological challenges faced in remote northern communities. Collaboration with the three northern colleges and governments is ongoing to determine how health care professionals from across the territories, and possibly the country, can access these resources. The purpose of this presentation is to share the process utilized to develop a community development toolkit that meets the learning needs and competency gaps for many northern health care providers. We will discuss the results of the pilot survey and focus groups, and share plans for electronic delivery of an innovative module to enhance community development skills for rural and remote Canadian practice. The opportunity for pan territorial collaboration between academia and government provided many challenges and opportunities to support health care providers as they engage with and empower northern communities.

### MONDAY, SEPTEMBER 21, 2015

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<td>Chair: Kyle Whitfield</td>
<td>20159 Oral Health Related Quality of Life: Does Rurality Matter?</td>
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<td>Amal Gaber¹, Jocelyne Feine², Elham Emami³</td>
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<td>¹Faculty of Dentistry, McGill University; ²Faculty of Medicine, Dept. of Epidemiology and Biostatistics, Dept. of Oncology, McGill University; ³Faculty of Dentistry, Université de Montréal</td>
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The geographical location of place of residency has been identified as a health determinant. However, little is known on how oral health outcomes vary across the urban-rural continuum, more specifically within Quebec and Canada. Therefore, the primary objective of this cross-sectional study was to compare Oral Health-Related Quality of Life (OHRQoL) in adult populations living in rural/urban regions of Quebec. The secondary objective was to assess the compositional and contextual characteristics of place of residency that could contribute to poor OHRQoL in a population. Andersen’s behavioral model for health services utilization was used as a conceptual framework for this study. Data were derived from ‘Dent ma region’ research project, a provincial survey nested in the Quebec Ministry of Health’s schoolchildren oral health clinical study. Based on a multistage, stratified, unequal probability sampling, data were collected from the parents/caregivers of schoolchildren (n= 1788) living in 8 rural/urban regions. Place of residency was defined according to the Census Metropolitan Area and Census Agglomeration Influenced Zone classification. The outcome of interest was OHRQoL, measured using the OHIP-14 validated questionnaire. Statistical analyses included data weighting, descriptive statistics and logistic regression.

A significantly greater proportion of the participants living in rural areas reported poor oral health than of those living in urban zones (13.3% rural versus 8.2% urban, p<0.02).

Rural residents reported a statistically significant higher prevalence of negative daily-life impacts in pain, psychological discomfort and social disability OHIP domains (p<0.05). Logistic regression indicated that OHRQoL was significantly related to the place of residency, education, annual equalized income, type of dental care provider, and needs factors (perceived need for dental treatment, pain, seeking dental treatment).

Based on these results, efforts in planning oral health promotion, educational interventions and needs-based tailored strategies are recommended.

### 20184

**Social Isolation and Rural Seniors – Evaluating the Friendly Visitor Approach**

*Nuelle Novik, SPHERU/Faculty of Social Work, University of Regina*

*Juanita Bacsu, Community Health & Epidemiology, University of Saskatchewan (co-presenter only)*
As individuals age, it is not uncommon to experience increased loneliness and social isolation. This isolation is often the result of a combination of factors including grief and loss, changes to mental health status, declines in physical health, lack of transportation, communication barriers, and reduced financial resources. For older adults who live in rural locations, these factors are further impacted by geographical barriers and reduced access to support services.

In 2014 a community-based research study was conducted in Sunrise Health Region to identify the mental healthcare needs of community-dwelling seniors in rural Saskatchewan, and to examine the factors that contribute to emotional wellbeing. Data was collected using in-depth qualitative interviews with 27 rural seniors aged 65 – 91 years of age. As a result of this research study, a community intervention has been developed to directly address the loneliness identified by these rural seniors. Working collaboratively with the Canadian Red Cross, a Friendly Visitor Initiative has been developed to be delivered as a pilot program for one year in Sunrise Health Region. Although different versions of friendly visitor programs for seniors have been delivered in different locations across the country, these programs have never been evaluated in terms of effectiveness and overall impact. This presentation will examine the Friendly Visitor Program evaluation framework highlighted as an integral element of this one year pilot program. The goal of the program evaluation is to gather evidence to support the expansion of this community-based support service for rural seniors across the Province of Saskatchewan.

20199
Connecting the Disconnected: Key Lessons from Community Based Projects for Addressing Mental Health and Substance Use Issues
Silvia Vilches¹, Mitacs Elevate Postdoctoral Fellow and Research Associate; Laura Tate², Provincial Director
¹Centre for Health Research and Leadership, Royal Roads University; ²Community Action Initiative, BC

In BC, a ten year plan, Healthy Minds, Healthy People, seeks to reduce costs and enhance responsiveness to mental health issues by encouraging a range of service delivery mechanisms. One of the valued approaches, consistent with world health movements, is through community-based supports, ideally in partnership models. The Community Action Initiative is a provincial foundation which distributes funds to support community projects to address mental health and substance use issues, as they are defined by community agencies. This presentation presents a model of partnering developed through a review of 28 community based projects. Key points of effectiveness in the cycle of partnering (The Partnering Journey) will be presented, and reflected on for how this approach may specifically benefit rural communities.

The Community Action Initiative (CAI), led by a board composed of key stakeholders in mental health, has provided grants for mental health and substance use to projects led by non-profit agencies. All projects are partnered with other community agencies (including governments, school boards, health authorities, policy, Friendship Centres, social agencies, and other entities). The projects are distributed in communities across the province. The CAI foundations initiated three research projects to explore innovation, promising partnership practices and engagement, and the findings presented here are the result of the investigation into promising partnership practices.

A grounded theory analytic approach was used to review a total of 28 projects, which were funded up to August 2013. The focus was on what made partnership processes successful from start to finish. While funded projects addressed a range of population groups, further care was taken to understand partnerships in the context of Aboriginal communities by utilizing two indigenous lenses (Campbell, Kittredge, & The Gitskan Government Commission, 2013; Vannini & Gladue, 2009). The team found that rural projects enjoyed as much success as urban partnerships. The team was also able to frame a model of successful partnerships in a mental health and substance use context, which may be valuable for others wishing to support community based approaches for addressing mental health and substance use issues.
The Future of Telemedicine: Divergent Directions

Sidney Shapiro, Rural and Northern Health, Laurentian University

Telemedicine is constantly evolving. New ways of connecting patients with healthcare providers, new forms of access to scarce healthcare resources, and leveraging technology to bridge the gap of geography coupled with a dispersed rural population. The direction telemedicine technology is taking, from building a widespread user base, involving many forms of allied care, and moving into “big data” biometric monitoring, will all transform the way healthcare is delivered in rural Canada. Cost and distance are major issues which the widespread implementation of telemedicine address, and there are many spinoff benefits, such as better technological connections to major urban centers, allowing for advances in rural communities in technology related employment, connected education and justice, among many other forms of shrinking the vast physical distances with virtual solutions.

I will discuss the various directions telemedicine is advancing in, who is using it and why, and what are some of the future benefits and consequences of wider technological adoption of telemedicine mediated healthcare interactions. From videoconferencing to bio data monitoring, the face of healthcare delivery will transform in the coming decades. It is important to understand the social and technological issues related to this fundamental shift, and how delivery and care are changing to bridge healthcare gaps in rural Canada.

Do Rural Patients in Ontario Under-utilize Preventive Care for Myocardial Infarction?

Deborah Cohen1, Douglas G. Manuel2, Claudia Sanmartin3

1Institute of Population Health, University of Ottawa; 2Ottawa Health Research Institute, University of Ottawa; 3Health Analysis Division, Statistics Canada

PURPOSE: The objective of this study was to explore rural-urban differences in the use of primary and secondary preventive services for acute myocardial infarction (AMI) – a condition that is amenable to primary healthcare prevention efforts.

METHODS: Primary and secondary preventive care services utilized two years prior to a patient’s first AMI were examined in a cohort of 30,491 patients in Ontario, Canada, from 2010 to 2012. Using logistic regression, rural-urban differences in lipid-testing, glucose-testing, stress-testing, electrocardiograms (ECG), and echocardiograms in middle-age and older patients were examined.

FINDINGS: Rural patients were less likely to receive all primary and secondary preventive services when compared to their urban counterparts, when other factors were controlled for. Rural patients were half as likely to receive care primary preventive services, with rural seniors being the most effected. (Lipid-testing: middle-age OR 0.519 (95%CI (0.470-0.574), senior OR 0.423 (0.387-0.461), Glucose-testing: middle-age OR 0.472 ((0.427-0.522), senior OR 0.360 (0.328-0.394). Rural patients were less likely to receive secondary preventive care, but differences between the age groups were not as apparent. (Stress-testing: middle-age OR 0.740 (95%CI (0.637-0.859), senior OR 0.725 (0.642-0.818), ECG: middle-age OR 0.806 (0.729-0.891), senior OR 0.715 (0.652-0.785), Echocardiogram: middle-age OR 0.733 (0.638-0.844), senior OR 0.731 (0.668-0.800).

CONCLUSIONS: Study results support ongoing concerns related to healthcare for rural Canadians, by demonstrating underutilization of AMI preventive care among rural patients. Rural seniors are most at risk of under-utilizing primary AMI preventive care. These results have implications for rural healthcare as well as seniors’ health policy in Canada.


Sara Homayounfar, MSc Public Administration, PhD student

School of Public Health, Université de Montréal, Quebec

The main objective of this presentation is to outline key features of the web-based patient portal with a special focus on its application in rural and remote health care settings. This patient-centered approach supports health care delivery and
encourages patients’ engagement and patients’ empowerment. The use of web-based patient portal in rural and remote areas has the potential to overcome the specific issues of rural and remote communities such as inaccessibility and shortage of specialists and health care providers especially for patients suffering from chronic diseases. However, the process of development and implementation of information technology could face major challenges such as limited health literacy. Yet, the continuous research efforts will allow building a useful knowledge base for patients, health care providers and key actors of health care systems. We conclude by wondering if health care policy makers can support rural and remote communities to expand the capacity of the use of internet-based patient portals and thereby improve access and quality of care.

20176
A Study Protocol for Adapting and Evaluating PC-DATA in Rural Primary Health Care

Julie G. Kosteniuk¹, Debra G. Morgan¹, Dallas Seitz², Jayna Holroyd-Leduc³, Megan E. O’Connell⁴, Andrew Kirk⁵, and Norma J. Stewart⁶
¹Canadian Centre for Health and Safety in Agriculture, College of Medicine, University of Saskatchewan; ²Geriatric Psychiatry, Department of Psychiatry, Queen's University; ³Department of Medicine, College of Medicine, University of Calgary; ⁴Department of Psychology, University of Saskatchewan; ⁵Division of Neurology, College of Medicine, University of Saskatchewan; ⁶College of Nursing, University of Saskatchewan

BACKGROUND: Canadian primary health care (PHC) providers are expected to bear most of the responsibility for diagnosing and managing individuals with dementia (with specialist support), yet widespread appropriate educational and decision support tools are not currently in place. Rural/remote PHC providers are at an added disadvantage without accessible health human and service resources. An Ontario-based model of PHC dementia care, the Primary Care Dementia Diagnosis and Treatment Algorithm (PC-DATA) intervention, addresses these shortcomings and is associated with positive health care provider outcomes. Although PC-DATA has been tested in small urban and rural practices, adaptation is required before implementing in Saskatchewan (SK) rural settings, to account for differences in the rural dementia care context between the two provinces.

OBJECTIVES: The 12-month study objectives are to: 1) Assess the applicability of PC-DATA to the context of the SK health care system and adapt PC-DATA accordingly; 2) Implement and evaluate the adapted PC-DATA intervention in a rural SK PHC team to test the effectiveness (outcomes) of program elements and gather data on contextual factors that influence implementation (process data); and 3) Develop a knowledge base to support scalability of PC-DATA to rural/remote settings in other jurisdictions and provide evidence for sustainability.

METHODS/DESIGN: This study involves the PC-DATA developer, dementia specialists, and a rural PHC team in a 6-step process guided by adaptation frameworks and community-based participatory research principles: 1) Setting the stage; 2) Problem analysis and needs assessment; 3) Assessment of intervention elements; 4) Resolution of program fidelity and applicability issues by dementia specialists; 5) Resolution of applicability issues and program adaptation by local PHC team; and 6) Identifying strategies for sustainability and scalability.

DISCUSSION AND CONCLUSIONS: The short-term study goals are to improve patient/family-centred dementia care within one PHC team initially, and provide evidence for the scalability of the Ontario-based PC-DATA model to other rural/remote contexts in AB and SK. Long-term, our goals are to support the inclusion of dementia in the SK Ministry of Health Chronic Disease Management-Quality Improvement program, thereby sustaining PC-DATA and building dementia care capacity in rural/remote PHC providers.

20173
Reaching Parents Their Way . . . with Triple P (Positive Parenting Program)

Peggy Govers¹, Training and Implementation Consultant; Shawna Lee¹,²,³, Triple P trainer and consultant, Professor, PhD Candidate; Debbie Easton¹, Program Implementation Consultant
¹Triple P Parenting Canada; ²Early Childhood Education, Seneca College, Ontario; ³University of Western Ontario
Environments that support positive growth and development of children have a lasting impact on child’s health across the lifespan. By making positive parenting a public health priority, we have the ability to increase the knowledge, skills, and confidence of parents in the task of raising children.

In 2012 an arm of the International Parenting Survey was conducted with 2000 parents from Canada. Results of this study indicated clearly that parents were looking for access to high quality parenting interventions; and a primary preference was through online service delivery.

Available throughout Alberta and many other areas of Canada, Triple P Positive Parenting Program has over 35 years of evidence based research as a multi-level system approach to parenting intervention, achieving positive parent and child outcomes. One of the variants of the Triple P program is a self-directed study workbook initially trialed in rural Australia. Building on technology and the consumer preference data, Triple P Online is a new self-directed variant of Triple P that provides an opportunity for all families to access timely support.

The self-directed variants of Triple P are seen as a strategy to engage some of the parents that are harder to reach due to remote service delivery barriers such as; fewer numbers of trained practitioners, physical access to communities (distance and road conditions), time to travel reducing or limiting the availability to provide services, families preferring not to participate in programing or supports where they may personally have connection to the provider. Sufficient reach to families increases the likelihood of positive outcomes for children and families across the whole of a population, thus change at a societal level. Recognizing that in urban centres families have access to many types of services, what can be missing is a more significant level of support and opportunities to build skills, for parents in rural or remote communities. Self-Directed variants of Triple P can eliminate such barriers. This workshop will discuss the current availability of Triple P Online throughout Alberta and many other parts of Canada, and resulting health outcomes for families in remote and northern communities.

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<td>A) Environmental and Social Impacts on Rural and Northern Health</td>
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20160
Quality of Work Life Factors Associated with Nurses’ Stress Who Work in Northeastern Ontario Urban, Rural and Remote Hospitals

Judith Horrigan¹,⁵, Nancy Lightfoot²,⁵, Michel Larivière³,⁵, and Kristen Jacklin⁴

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BACKGROUND: Nurses have the highest illness, disability, and absenteeism rates compared to all other occupations across Canada, with an estimated cost of $711 M to the healthcare system. Researchers suggest that nurses’ health is linked to their quality of work life (QOWL) and work environments.

OBJECTIVES: A mixed methods sequential explanatory design was used to explore the QOWL and stress of RNs (n=173) working in two urban, one rural, and one remote hospital settings in northeastern Ontario.

RESULTS: Quantitative results of the multiple regression model explained 42% of the variance (R² 0.423) with four items that were significant at a p-value of 0.05. Factors associated with increased Nursing Stress Scores (NSS) included: increased workload (F (4,130)=10.47, p=0.0016), decreased work home life balance (F (4,130)=4.75, p=0.0311), deceased support services that allowed RNs to spend time with patients (F (4,130)=17.94, p <0.0001), and decreased nursing ability subscale items (F (4,130)=5.59, p <0.0195). Four items in the logistic regression model indicated the likelihood of higher stress versus lower scores that included: nurses’ <34 years of age [2.92 (95% CI: 1.20-7.14)], who experienced exhaustion [3.34 (95% CI: 1.42, 7.84)], a lack of support services for nurses to spend time with patients [3.56 (95% CI: 1.78, 7.10)],
and insufficient staff to get the work done [2.11 (95% CI: 1.14, 3.92)].

CONCLUSIONS: Nurses stress is associated with QOWL and practice environment factors that included workload, the need to balance home and work life, an increased need of support services for nurses to spend time to care for clients, and supportive supervisors and work environments. Reducing nurses’ exhaustion, the provision of adequate support services, and sufficient staff are associated with lower NSS scores.

2017
Challenges and Considerations in the Selection of Domestic Wastewater Treatment Technologies for Urban, Rural and Remote Communities
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¹Scientific Services, Quality Assurance and the Environment, EPCOR Water Services; ²Analytical Services, Quality Assurance and the Environment, EPCOR Water Service

Wastewater, whether raw or treated, is a complex and heterogeneous cocktail of organic and inorganic materials containing a diverse microbial community of bacteria, protozoa, viruses, fungi, and helminths. Domestic wastewater, specifically, is often a combination of human feces, urine and graywater. Wastewater volumes generated and contaminants contained in this wastewater are highly impacted by population size, population demographics and various activities occurring in the community’s vicinity (e.g., industrial, agricultural, etc.); all of which can affect discharge and treatment processes, as well as treated effluent quality. Since the average human excretes about 100 - 500 g of feces and about 1-1.3 L of urine per day, the wastewater reaching treatment facilities can be polluted with a broad range of biological contaminants that were part of the microbiota of symptomatic and asymptomatic carriers in the community and that need to be removed or inactivated to ensure public health is protected. However, the resources available to resource-limited rural and remote communities make wastewater treatment a challenging endeavor. The objectives of this presentation are to: a) compare common types of wastewater treatment used in urban, rural and remote communities using various case studies, b) highlight challenges that can be encountered in different communities, which can impact what treatment processes are selected, and c) identify the outcomes of wastewater treatment decisions and how these decisions can impact public, occupational and environmental health in the community. Among the types of wastewater treatment technologies covered will be biological contact reactors, activated sludge systems, lagoons and constructed wetland systems. As treatment technologies and monitoring regulations start moving towards more holistic and complex paradigms, it becomes essential for professionals aiding rural, remote and aboriginal communities making wastewater treatment decisions to understand the options available and what they require for success and sustainable management.

2019
Community Reflections on Addressing Environmental Challenges in Two First Nations
*Kathleen McMullin*¹, *Sylvia Abonyi*², *Jo-Ann Episkewen*³, *James A. Dosman*¹, *Punam Pahwa*¹, *Chandima P. Karunanayake*¹, *Donna Rennie*¹, *Jenny Gardipy*⁴, and *Laura McCallum*⁴

¹Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan; ²Department of Community Health and Epidemiology, University of Saskatchewan; ³Indigenous Peoples’ Health Research Centre, University of Regina; ⁴Community Partner of the Project

BACKGROUND: An objective of the University of Saskatchewan Project, Assess, Redress, Re-assess: Addressing Disparities in Respiratory Health Among First Nations People is to ‘test the hypothesis that personal, social and physical environments are associated with adverse respiratory outcomes that are amenable to intervention in First Nations people living on reserves in rural Saskatchewan’.

Identification of factors that promote health and prevent respiratory disease in First Nations populations will guide strategies to improve disease outcomes, including public education and health services programs. The findings from this study will empower First Nations to effect changes in their communities, as well assisting in determining provincial and national policies and priorities.

METHOD: In this descriptive qualitative phase of the study, eleven focus groups were conducted in two First Nations to
glean members’ perceptions of housing conditions and health. Both communities were consulted before the Behavioural Research Ethics Board approved conducting focus groups from May 22 – August 31, 2013. The opportunity to participate in focus groups was presented at Treaty Days, posters, and newsletters. Community Health Representatives and two students contacted prospective participants door to door to provide information sheets. Seven groups of between seven and ten participants were randomly selected from interested community residents. A micro representation of the larger community population was selected from young adults, adult mothers, or other primary caregivers of children under the age of 18, Elders, adult men, high school students, and Members of Chief and Council.

RESULTS: The focus groups’ reflections show a pattern of challenges and solutions in housing, smoking control, infections, body weight and other areas. Since participants were looking at ways to address the challenges through their personal and community experiences, it became apparent to the interviewer that the Cree Tipi Teachings would be an interesting framework by which to analyze the data. The teachings, regardless of type of dwelling, are values by which communities organized themselves in promoting optimal health outcomes on an individual, family, and community basis. These values emerged in the discourse as Band members shared ideas on maintaining or improving the health and quality of life in their communities.

20163
Effect of Workplace Limit Hypercapnia on Innate Immune Response to Hog Barn Dust Exposure

David Schneberger, Jane M. DeVasure, Kristina Bailey, Debrah J. Romberger, and Todd A. Wyatt

Department of Internal Medicine, College of Medicine, University of Nebraska Medical Center

Abstract content not authorized for publication.

ABSTRACTS – POSTER PRESENTATIONS

Jubilee Ballroom B, Level 2,

20191
Risk Factors Associated with Asthma in School Children Along an Urban-Rural Gradient in Saskatchewan

Jinnat Afsana1, Donna Rennie1,2, Donald Cockcroft3, Anna Afanasieva1, and Josh Lawson1
OBJECTIVES: 1. What are the risk factors associated with the prevalence of asthma and wheeze in pediatric populations in Saskatchewan? 2. Are the risk factors for asthma and wheeze, as identified in Research question #1, modified by area of residence (urban vs. rural)? 3. Which risk factors best explain the variations of asthma prevalence along an urban-rural gradient in Saskatchewan?

METHODS: Data was collected from within the province of Saskatchewan. Children were recruited from three regions representing a large urban, small urban, and rural area (Regina, Prince Albert and the rural area around Prince Albert, respectively) of Saskatchewan. Schools in Regina were randomly selected. All schools in the Saskatchewan Rivers School District in Prince Albert and the surrounding area were selected. The study was a cross-sectional survey that was completed in 2013. Children attending school from Kindergarten to Grade 8 (ages 5-14 years) were eligible and the total sample size was 3,442 with approximately 30% participation rate. Questionnaires were based on standardized questionnaires including the International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire, the American Thoracic Society’s (ATS) Division of Lung Diseases questionnaire for children as well as questionnaires used previously in Saskatchewan lung health studies. Information was collected on lung and general health, indoor environment, health behaviors, and socio-demographics.

RESULTS: The results of this study are still pending but should be available by September 2015.

CONCLUSION: Our study will help identify reasons for geographic variations of childhood asthma in Saskatchewan. This, in turn, will help in our understanding of asthma etiology.

20182
Understanding Rural Seniors’ Experiences with Health-Related Costs in Aging: A Qualitative Study
Feng Chang1,2, Kristi Butt1
1School of Pharmacy, University of Waterloo; 2Gateway Centre of Excellence in Rural Health

OBJECTIVES: Previous studies demonstrate a positive correlation between wealth and health, it is hypothesized that improving the financial status of rural residents may ameliorate disproportional negative health outcomes in this population. With intentions of developing a community-based education and peer-mentoring program that promotes awareness of and self-management strategies associated with health-related costs of aging, the objective of this project is to develop an in-depth understanding of rural seniors’ experiences with health-related costs in aging.

METHODS: Eleven retired older adults living in rural Southwestern Ontario were recruited through community partners and online advertising to participate in 1:1 semi-structured interviews. Qualitative data analysis was conducted using an inductive approach in NVivo 10.

RESULTS: Older adults most commonly associated health-related costs with physical ailments, despite reporting significant mental challenges. While they are grateful for universal health coverage, they believe there is room for improvement especially in mental health, dental, and vision care. Many seniors also believe additional health coverage is important, but there is significant distrust for private insurance companies. Unexpected health costs are a source of concern, but these costs were not a consideration for many when preparing for retirement. Many assumed provincial coverage plans will be sufficient. Advice for younger generations centred on planning ahead, staying healthy, and saving money early.

CONCLUSIONS: Older adults aging in rural communities expressed concerns regarding unexpected health-related costs and identified gaps in the existing provincial benefit plan. Better sources of information and advanced planning are recommended to help rural residents become better prepared to handle health-related costs associated with the many facets of aging.

20183
The Gateway Story: Building and Growing a Centre of Excellence in Rural Health in Ontario
Feng Chang1,2, Gwen Devereaux2, Dan Stringer2
1School of Pharmacy, University of Waterloo; 2Gateway Centre of Excellence in Rural Health
OBJECTIVES: Recent studies reveal higher rates of chronic disease and shorter life expectancies for rural Ontarians than their urban counterparts. Gateway Centre of Excellence in Rural Health (Gateway) is a grass-roots initiative to connect rural communities with resources in academia, government and community health organizations in order to improve the health and quality of life of rural residents through research, education, and communication.

DISCUSSION: Modelled on Hazzard Kentucky’s Centre of Excellence in Rural Health, Gateway is Ontario’s first community driven centre of excellence in rural health. Over the past six years, Gateway has joined forces with nine individuals from diverse disciplines who serve as research chairs for the centre. In this time, Gateway’s research team has facilitated over 25 rural health research projects, and mentored more than 45 health discipline students. Gateway has also established partnerships with four post-secondary institutions, including the Schulich School of Medicine and Dentistry and the University of Waterloo School of Pharmacy. Additionally, collaboration agreements have been signed with two rural hospitals with a total of five clinical sites, and informal agreements exist with several local family health teams. Gateway has also played a key role in recruiting physicians to the area and facilitating local health-agriculture partnerships. Finally, Gateway has spoken at provincial, national and international conferences over the years, raising awareness about health issues that threaten sustainable development of rural communities.

CONCLUSION: By collaborating with area academic institutions, health organizations and local communities, Gateway has formed a unique network enabling engaged individuals of various disciplines to work together to conduct research and promote education and training in a rural environment. Growth thus far suggests the vision in Gateway could serve a previously unmet need. The model may be viable for other rural areas interested in establishing similar centres to advance best practices in rural health.

20192

Comparing Rural and Urban Aboriginal Peoples’ Oral Health in Canada: A Scoping Review
Basem Danish, Mary Ellen Macdonald, and Christophe Bedos
Oral Health and Society Division, Faculty of Dentistry, McGill University

BACKGROUND: Traditionally, Aboriginal people in Canada lived in rural Aboriginal specific communities. While many today have moved to urban areas for reasons such as education and employment, about half still remain in rural settings. Unlike non-Aboriginal Canadians, many Aboriginal Canadians receive free dental care through the Federal Non-Insured Health Benefits (NIHB) program. Despite this coverage, Aboriginal Canadians have poorer oral health than non-Aboriginal Canadians. While rural/urban oral health inequalities generally exist in Canada, it is yet unclear if oral health inequalities exist between rural and urban Aboriginal Canadians themselves.

OBJECTIVES: Our aim is to examine available literature to provide a portrait of the similarities and difference between rural and urban Aboriginal Canadians in terms of oral health status, oral health behaviours, access to oral health care services, and social determinants of oral health (SDOH).

METHODS: Authors performed a scoping review using the revised Arksey and O’Malley framework to answer the question: Are there oral health inequalities between rural and urban Aboriginal Canadians?

FINDINGS: Studies comparing oral health of rural and urban Aboriginal people are scarce. Rural First Nations children have two times higher rates of dental decay than urban First Nations children. In terms of risk factors to poor oral health, prevalence of smoking and diabetes is higher among rural First Nations than urban First Nations. Unhealthy dietary habits are generally more common in rural areas. Initially, there was no tradition for oral hygiene in rural communities, but recent oral health promotion programs have improved oral hygiene practices. Although NIHB covers more rural than urban Aboriginal people, there is a problem with retention of dentists in rural settings. For SDOH, social exclusion and racism are common barriers to access oral health care in urban areas. Crowding is reported in both settings but seem to be more in rural areas. Education and income are higher in urban than rural Aboriginal populations.

CONCLUSION: Oral health interventions focusing on Aboriginal populations should not follow a one size fits all approach. Determinants of Aboriginal people’s oral health differ in rural and urban settings. Further research is needed to illuminate these differences and the reasons behind them.

20185

Toolkit for Early Screening of Mental Health Disorders in Seniors
BACKGROUND: Mental health disorders in the senior population often go undetected, and there have been repeated calls to improve detection of mental health disorders in seniors. In response to this call, we have developed a Toolkit for the purpose of early identification of the four most common mental disorders in the Alberta senior population (anxiety, dementia, depression, and substance [alcohol] abuse).

OBJECTIVE: To create a standardized, user-friendly Toolkit to assist health care professionals in the primary care setting in the early identification of anxiety disorders, dementia, depression, and alcohol abuse.

METHODS: The Toolkit is based on a series of systematic literature reviews (one for each mental health disorder). These reviews focused on assessing the accuracy of the tools for identifying the mental health disorders in the primary care setting (e.g., psychometric properties of sensitivity, specificity, etc.). An expert panel with expertise in senior’s mental health then provided validation for the tools selected. Finally, consensus group conferences were held with primary care health care professionals throughout the province of Alberta on the feasibility of the Toolkit (e.g., ease of administration and scoring, patient uptake).

RESULTS: In total, eight screening tools were identified for the four disorders, one for anxiety, two for dementia, three for depression, and two for substance (alcohol) abuse. All tools met a number of criteria including a high degree of accuracy in identifying those with and without the disorder, ease of administration (e.g., short, easy to score), and non-proprietary. To assist with the uptake of the Toolkit, we have developed paper- and web-based Toolkits available at no cost.

CONCLUSION: The availability of an evidence-based Toolkit to assist health care professionals in the primary care setting in the early identification of seniors with anxiety, dementia, depression, and/or an alcohol abuse problem represents a significant step in earlier detection with anticipated improvements in outcomes in the senior population.

20186
Development, Dissemination, and Evaluation of a Toolkit for the Implementation of Age-Friendly Alternate Transportation for Seniors in Rural and Urban Alberta

Bonnie Dobbs, Tara Pidborochynski, Research Coordinator and Mayank Rehani, Research Coordinator
Medically At-Risk Driver Centre, Department of Family Medicine, University of Alberta

BACKGROUND: Alberta’s population is aging, with the proportion of seniors is expected to be almost 20% throughout the province over the next 30 years. It is anticipated that this aging of the population will increase the demand for alternate transportation for seniors (ATS) services, particularly among seniors in rural areas, due in large part, to involuntary and voluntary driving cessation. Lack of access to transportation for seniors often results in unmet needs (e.g., reductions in access to medical services, other ‘necessary’ services [groceries, banking], and social and religious activities). Importantly, the lack of access to responsive transportation also can compromise the ability to age in place. There are a number of challenges to implementing ATS service in urban and rural communities. The absence of ‘easily accessible’ and targeted information on implementation of ATS service provision is one of the challenges.

OBJECTIVE: The goals of this project are to develop, disseminate, and evaluate a Toolkit for the Implementation of Age-Friendly Alternate Transportation for Seniors in Rural and Urban Alberta.

METHODS: The project is divided in three phases. Phase 1 involves development of the Toolkit. Phase 2 is focused on the dissemination of the Toolkit to municipalities, communities, and/or organizations in rural and urban Alberta through partnerships with relevant stakeholder and hosting of Workshops in rural and urban Alberta. Phase 3 consists of evaluation of the uptake and utility of the Toolkit by municipalities, communities, and/or organizations in rural and urban Alberta.

RESULTS: Use of this toolkit will enable interested groups to develop and implement ATS services in their communities. Establishment of ATS services for seniors will lead to positive impact on seniors’ physical and mental well-being.

CONCLUSION: The availability of a Toolkit to assist in implementation of ATS services will lead to improved outcomes for seniors and the community as a whole.
20152

Whole Body Vibration and Low Back Disorder among Saskatchewan Farmers: Investigating the Effect of Follow-up Duration

Samuel Kwaku Essien¹, Catherine Trask², Niels Koehncke², and Brenna Bath³

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BACKGROUND: Low back disorder (LBD) is the most common musculoskeletal problem among farmers, with higher prevalence than other occupations. Operators of tractors and other farm machinery such as combines or all-terrain vehicles (ATV) can have considerable cumulative exposure to whole body vibration (WBV). Although there appears to be an association between LBD and WBV, lack of prospective studies makes the relationship between LBD and WBV unclear.

PURPOSE: This study investigates the association between WBV and LBD among Saskatchewan farmers using a prospective cohort study, and compares the association over two follow-up periods: 6-years and 1-year.

METHODS: The Saskatchewan Farm Injury Cohort Study Phase I (2007) and II (2013) data were used. Baseline data were collected via postal questionnaire on accumulated yearly tractor, combine, and ATV use as well as several covariates to support a biopsychosocial model of LBD. Follow-up data on musculoskeletal symptoms were collected for 6-year follow-up in 2013 from 1149 participants and the 1-year follow-up in 2014 from 605 participants. Questions on “low back trouble” (ache, pain, discomfort) experienced in the last 12 months were answered by farmer participants as “yes” or “no”. A GEE-modified Poisson approach was performed.

RESULTS: Twelve-month prevalence of LBD was 59.8%. In multivariate analysis of the 6-year follow-up, LBD was associated with tractor operation, with a dose-response relationship for annual accumulated tractor operation. Although combine operation ≥ 61 hrs/year was significantly related to LBD in bivariate analysis, this difference did not persist after adjustment for confounders. For the 1-year follow-up, only operating tractor for ≥ 151 hrs/year and ATV for 1-20 hrs/year were related to LBD after adjustment for confounders. In both models, age was found to be a confounder in the relationship between WBV and LBD and no interactions were found. Depression was available as a variable only in the 1-year follow-up, where it was found to be a confounder.

CONCLUSION: Overall, larger effects were found in the 6-year follow-up. This may be due to sample size, lack of confounding and the effect of exposure accumulation. Future research involving direct measurement of WBV may help identify appropriate prevention strategies.

20197

Life Style Factors Contributing to Obesity among First Nations Children

Chandima Karunanayake¹, Donna Rennie¹², Joshua A. Lawson¹³, James A. Dosman¹³, Kathleen Mc Mullin⁴, Laura Mc Callum⁵, Jenny P. Gardipy⁶, Jeremy Seeseequasis⁶, Sylvia Abonyi⁴, Jo-Ann Episkewen⁷, Punam Pahwa¹⁴, and First Nations Lung Health Project Team¹

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RATIONALE: Many life style factors such as diet, lack of exercise contribute to increased risk of obesity in children. The objective of this study is to investigate the life style risk factors associated with obesity among children in two First Nations Communities in Saskatchewan.

METHODS: The baseline cross-sectional survey-children component of the First Nations Longitudinal Respiratory Health project for children was conducted in 2013. Questionnaires were delivered through schools and parents of 351 First Nations children aged 6-17 years living in two reserves were completed the survey. Height and weight measurements for 304 children were available and 307 children completed clinical assessment. Obesity and overweight were defined
according to International Classification Standard for child’s age and sex. Life style factors assessed included: frequency of intake chips, candy or drink pop per week, frequency of physically active for at least 60 minutes per day per week, hours of watching TV or play video games per day, exposure to passive smoking, number of hours sleep during the weekday. Child age, sex, mother smoked during pregnancy were considered as adjusting factors. A multinomial logistic regression model with 3 outcome categories [obese, overweight and normal (referent)] was used to assess associations between outcome categories and life style factors.

RESULTS: The overall response rate for the children survey was 58.2%. The prevalence of obesity and overweight were 23.4% and 29.9%, respectively. During a typical week, about 24% of children ate chips, candy or drink pop five or more times per week; 37.2 were physically active ≤ 4 days a week and 12.2% of children watch TV or play video games ≥ 5 hours/day. After adjusting for covariates and when compared to normal weight children, obese children were more likely to eat chips, candy and drink pop (adjusted odds ratio (ORadj): 5.04, 95% confidence interval (CI): 1.44-17.72) and were less physically active 0-1 or 2-4 days/week (ORadj: 4.38, 95% CI: 1.11-17.28; ORadj: 3.71, 95% CI: 1.46-9.46, respectively). No such associations were noted for overweight children.

CONCLUSION: Life style factors play an important role in body mass index of First Nations children.

20201

Understanding Respiratory Health Outcomes in Rural Populations: A Longitudinal Saskatchewan Rural Health Study

Punam Pahwa1,2, Chandima Karunanayake1, Louise Hagel1, Donna Rennie1,3, Valerie Elliot1, Josh Lawson1, Bonnie Janzen2, Shelley Kirychuk1, William Pickett4, A Senthilselvan5, Yue Chen6, and JA Dosman1

1Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan; 2Department of Community Health and Epidemiology, University of Saskatchewan; 3College of Nursing, University of Saskatchewan; 4Department of Community Health and Epidemiology, Queen’s University; 5School of Public Health, University of Alberta; 6Department of Epidemiology and Community Medicine, University of Ottawa

According to Health Canada’s “Population Health Framework”, determinants at the individual level (e.g. smoking, diet, health service use, and heredity), the contextual level (e.g.: social and physical determinants), and the interaction between them, produce varying levels of adverse respiratory health. Based on this framework, we conducted the Saskatchewan Rural Health Study (SRHS) to test the hypothesis that the rural environment, as a determinant of health, is associated with respiratory health outcomes in farming and non-farming rural people. The objectives of the SRHS were to conduct: (1) an overall assessment of the relationship between various determinants and respiratory outcomes in farmers and small town dwellers; (2) a prospective cohort evaluation of respiratory health outcomes in farmers and small town dwellers; and (3) an assessment of rural/urban differences in respiratory related health care utilization patterns. To accomplish objective (1) we conducted a baseline survey that consisted of self-reported questionnaires and clinical measures. Information was collected on respiratory outcomes, individual factors (e.g.: smoking, diet, health service use and heredity), and contextual factors (e.g.: social and physical determinants) on 8261 individuals (residing in 4624 households (HHs)). Clinical measurements were obtained on 1675 randomly selected participants.

To accomplish objective (2) we conducted a 2014 prospective survey of farmers and small town dwellers who had previously participated in the baseline survey. (n=4873 individuals residing in 2798 HHs; clinical measures on 886 individuals). Objective (3) will be accomplished by using Saskatchewan Health administrative databases. For this presentation, we will present a detailed methodology of the SRHS, important findings of the baseline survey, and descriptive results of the follow-up component. The information from this project will assist in developing prevention programs; planning for health service delivery; identifying factors that promote health and prevent respiratory disease in rural populations; informing policy at the Saskatchewan Regional Health Authority level; and determining provincial and national priorities.

[Supported by the Canadian Institutes of Health Research grant # MOP 90002]
Supports and Barriers to Participant Recruitment: Lessons from a Rural Older Adult Exercise Intervention

Carolyn Tran¹, Dr. Bonnie Jeffery², Juanita Bacsu³, PhD, and Dr. Shanthi Johnson²

1Saskatchewan Population Health and Evaluation Research Unit (SPHERU); 2University of Regina; 3University of Saskatchewan

Participant recruitment is key for successful research implementation, but it can be one of the most challenging aspects of the research process. For rural research, this becomes amplified due to the small populations researchers can draw from and the researchers’ ability to navigate “small town” culture. Rural research studies consistently identify challenges in participant recruitment and its impact on their studies with little guidance for other researchers on how to address these issues. Drawing from the research experiences of an older adults exercise intervention, this presentation will discuss the creative and innovative strategies used to recruit and retain participants in a rural setting. More specifically, we will explore: 1) the unique approaches to recruitment; 2) the challenges and advantages of using these methods; and 3) reflections and insight on approaches which may be used to strengthen future research.

Utilizing a community based approach throughout the planning and implementation stages, the research was carried out in the rural communities of Young, Watrous, and Wolseley, Saskatchewan. We used a within group pre/post-test design with a mixed methods approach to assess the effectiveness of the program on two outcome variables: 1) mobility and 2) social interaction. The involvement of community leaders and local partners, researcher presence in the community, and researcher participation before actual recruitment (such as attending exercise training or local events) translated into successful recruitment and retention of participants. Participant engagement in the recruitment process also supported successful enrollment in the research study; 56 rural older adults have participated. These strategies culminated in an environment of enthusiasm, community engagement and belief in the importance of the research. By concentrating on participant recruitment in rural settings and understanding the potential supports and barriers in this process, rural researchers or researchers new to rural research may apply these lessons to formulate better recruitment strategies specific to the rural context while strengthening their research overall.

20200
From Silos to Community-based Key Agents: Effective Supports for Rural Families with Young Children, Including Those with Developmental Delay or Disabilities

Silvia Vilches¹, Mitacs Elevate Postdoctoral Fellow and Research Associate; Maria J. Pighini², PhD; and Mary Stewart², M.A.

1Centre for Health Research and Leadership, Royal Roads University; 2Institute for Early Childhood Education and Research (IECER), Faculty of Education, University of British Columbia

The results of a three year community engaged, multi-study project, and field work in northeast BC point to the importance of community-based agents as arbiters of service delivery for families with young children, including children with developmental delay and diagnosed disabilities. Our health system models are premised on an expert to lay system of service delivery, which due to efficiencies of scale, means that experts are in urban areas and lay practitioners in rural areas.

However, our review of family and practitioner information, gathered through focus groups, interviews, and other methods, demonstrates that rural families and service providers are highly innovative and effective in addressing barriers such as lack of information, seasonal and geographic travel barriers, the need for resources and supports while families travel, and advocacy to coordinate across jurisdictional divides. Nonetheless, our review also suggests that without dedicated supports, some types of families, who tend to be marginalized through lifestyle choices, language, economic circumstances, racialization or ethnic difference, or newness to specific communities or to Canada, may be unintentionally omitted. We therefore advocated that dedicated and thoughtful funding be provided to assist in achieving public goals of equitable early intervention service access.

This poster presents a model of service delivery that we are proposing for a pilot intervention. Similar to navigator models used in other sectors, this model is unique in proposing a network view of community systems and utilizing the strengths of rural relationally grounded systems. We suggest that working through a key community agent will translate urban
siloed formal systems of referral to horizontally organized rural systems. We anticipate that the lessons learned from working with the strengths of rural communities will be reveal alternatives for urban communities as well.

20172

Developing a Conceptual Framework for Information Access for Rural Seniors

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In Canada, a quarter of all seniors reside in rural settings where supports and services necessary to age in place are often limited. Rural seniors experience poorer physical health, increased chronic illnesses and poorer cognitive health compared to their urban counterparts. In comparison to urban seniors, rural seniors overall have a greater lack of resources, having less access to home care and seniors housing, fewer health services and less use of preventative health care. Rural seniors' ability to age in place is influenced by their access to information and awareness of available supports and services. However, access to information for this population is often inconsistent, unavailable and inaccurate; and the onus is usually on seniors to seek out information. This lack of knowledge translates into low usage of supports and services, challenges in navigating the health system, limited awareness of preventative programs, and high hospitalization and acute care rates. This disparity is acknowledged less in the literature and although a few studies have begun to discuss the issue of providing information resources to rural seniors, none appear to use a conceptual framework in approaching the issue.

This paper will present the beginning developments of a conceptual framework outlining the factors that support access to health information for rural seniors. While this developing framework highlights key factors from the literature it also points to a gap in our understanding of the issue for rural seniors since most of the current research focuses primarily on access to health information. Drawing on findings from our Rural Healthy Aging in Place study, we will highlight additional key factors that need to be incorporated into a conceptual framework in order to support rural seniors' access to information. Research outcomes from our study have demonstrated the need for information that goes beyond health issues and that incorporates both practical and innovative approaches to making information more accessible to rural seniors. Data gathered highlights the importance of person to person communication, ongoing relationships, consistency, and accuracy of information.
CONFERENCE EVALUATION FORM
“Better Health for Rural Canadians: From Evidence to Practice”
September 20-22, 2015
Edmonton, Alberta

1. What were your expectations for this conference?
_______________________________________________________________________________________
_______________________________________________________________________________________

Were they met?  Yes ( )  No ( )
2. What did you like most about the conference?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

3. What could have been improved about this conference?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

4. Did you attend a workshop on Sunday?
Yes ( ) No ( ) Please indicate which workshop: #1 ( ) #2 ( ) or Both ( )

Please comment on the overall quality of the workshops attended:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

5. Suggestions for future workshops: _____________________________________________

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

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<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>Adequate networking</td>
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<td>Group discussion</td>
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<td>General information about rural &amp; remote health research</td>
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<td>Interface between research evidence and practice</td>
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<td>Interface between researchers and community members</td>
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<td>Sufficient breaks</td>
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<td>Adequate number of keynote speakers</td>
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<td>Adequate number of concurrent sessions</td>
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<td>Sufficient variety of paper, keynotes and panels</td>
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</table>

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:
______________________________________________________________________________
______________________________________________________________________________
Thank you!!