Our Mission

“To facilitate research aimed at improving the health of people living in rural and remote Canada”

Our Goals

“To build inter-disciplinary, multi-disciplinary, mutually supportive and community-focused research networks concerned with rural and remote health.”

“To develop health research that is responsive to the needs of people living in rural and remote communities.”

Our Five-year Targets

Increase in the number of scientists active in rural and remote health research.

Increase in targeted funding for rural and remote health research at provincial and national levels.

Increase in the number of nationally funded peer-reviewed research projects in rural and remote health.

Increase in the number of studentships, post-doctoral fellowships and research chairs with a focus on rural and remote health.

Increase in the involvement of rural and remote communities in planning, implementing and evaluating health research.
Welcome to the Third Annual Scientific Meeting of the Canada Rural and Remote Health Research Society! Our fledging society is proud to be able to provide you this forum to discuss current findings on rural and remote health issues with fellow researchers from across Canada. We are also working to continue to build networks of those with a particular interest in rural and remote health research. In the fall of last year, we changed our name to the Canadian Rural Health Research Society from Rural Health Research Consortium.

During the last year, we moved to further advance the cause of rural and remote health research in Canada. Funded by six of the Institutes of CIHR (Population and Public Health; Neurosciences, Mental Health and Addictions; Human Development and Child and Youth Health; Healthy Aging; Gender and Health; and Health Services and Policy Research) many of us responded to a widespread invitation to meet in Thunder Bay in March. At Thunder Bay we made the decision to link our current and planned research projects in new ways for knowledge development and capacity building under the title of the “Canada Rural and Remote Health Studies”. Subsequently, we have been funded by the CIHR Strategic Initiative in Rural Health to further develop this exciting concept. It is our hope that this meeting in Halifax, our third annual national scientific meeting, will further lead to this reality.

Welcome to Halifax!

Martha MacLeod, PhD, RN
University of Northern British Columbia

James A. Dosman, MD, FRCPC
University of Saskatchewan
This conference would not be possible without the considerable efforts of a number of individuals and the generous donations of others. A special thank you to:

- **Canadian Institutes of Health Research and in particular Dr. Renee Lyons for ongoing support of Rural Health Research in Canada**
- **The Canadian Health Services Research Foundation, especially Doug Hough and the Rural Secretariat, in particular Aurelie Morgan, for their efforts and recognition of the importance of rural health**
- **Statistics Canada for supporting Dr. Nancy Ross as a guest speaker and a special thank you to Dr. Jean Marie Tremblay for his assistance**
- **Institute of Agricultural and Rural Environmental Health and in particular Sueli de Freitas and Iris Rugg for conference secretariat support**
- **Rural Development Institute, Brandon University, and in particular, Fran Racher and Sylvia Henry, for phenomenal organizational support for all aspects of this meeting and the workshop**
- **The Centre for Rural and Northern Health Research, Lakehead University for providing tremendous support to the Scientific Subcommittee**
- **Community Health and Epidemiology, Dalhousie University for wonderful on the ground secretarial assistance**
- **Members of the Scientific Committee who deliberated over the summer months in order to put the program together**
- **Our wonderful keynote speakers!**
- **Chairs of the Concurrent Scientific Sessions!**
- **Students who assisted with audio-visual needs at the sessions!**
- **Researchers who are participating in this meeting!**

2002 CRHRS Conference Committee:

*Dr. Judy Guernsey, Chair*  
*Dr. Bruce Minore, Chair, Scientific Subcommittee*  
*Dr. Fran Racher*  
*Dr. Martha MacLeod*  
*Dr. Alex Michalos*  
*Dr. Jim Dosman*  
*Dr. Dorothy Forbes*  
*Sueli de Freitas, Secretary*
## CONCURRENT SESSIONS LOCATIONS

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>WORLD TRADE AND CONVENTION CENTRE</th>
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<tbody>
<tr>
<td>Thursday Oct 24</td>
<td><strong>Pop Health</strong>&lt;br&gt;Mariner Suite 1&lt;br&gt;WTCC</td>
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<tr>
<td>Lunch</td>
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<td></td>
<td><strong>DELTA HALIFAX HOTEL</strong></td>
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<tr>
<td>Lunch</td>
<td><strong>Bluenose Room</strong> Delta Halifax</td>
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<td>Thu 1:00 – 2:00</td>
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<tr>
<td>Friday Oct 25</td>
<td><strong>Pop Health</strong>&lt;br&gt;Baronet 1-3</td>
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<tr>
<td>Lunch</td>
<td><strong>Posters</strong>&lt;br&gt;Bluenose</td>
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<tr>
<td>Fri 1:30 – 3:00</td>
<td><strong>Pop Health</strong>&lt;br&gt;Baronet 1-3</td>
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<tr>
<td>Fri 15:15 – 16:45</td>
<td><strong>Symposium on Children’s Health – Bluenose Room</strong></td>
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<td>Saturday Oct 26</td>
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<tr>
<td>Lunch</td>
<td><strong>Bluenose</strong></td>
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<tr>
<td>Sat 9:00 – 10:00</td>
<td><strong>Pop Health</strong>&lt;br&gt;Baronet 1-3</td>
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<td>Sat 10:30 – 12:00</td>
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<tr>
<td>Luncheon</td>
<td><strong>Bluenose</strong></td>
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PROGRAM AT A GLANCE
PRE-CONFERENCE “RURALITY WORKSHOP”

WEDNESDAY OCTOBER 23rd, 2002  
World Trade and Convention Centre  
1800 Argyle Street

<table>
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<tr>
<th>Time</th>
<th>Function</th>
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</table>
| 08:00 – 09:00 | “Rurality Workshop” Registration  
Place: World Trade & Convention Centre |
| 09:00 - 17:00 | “Rurality Workshop”                                |

CONFERENCE REGISTRATION

Delta Halifax  
Barrington Street

<table>
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<tr>
<th>Time</th>
<th>Function</th>
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</table>
| 17:00 – 19:00 | Conference Registration  
Delta Halifax Main Floor |

KILLAM LECTURE ON  
GLOBAL HEALTH AND CLIMATE CHANGE

Wednesday October 23rd, 2002  
Dalhousie University McCain Building  
Ondaatje Auditorium  
6135 University Avenue  
8 PM  
Dr. Anthony McMichael

**Climate Change: Does Global Warming Warrant a Health Warning?**

Dr. Tony McMichael studied medicine and epidemiology at Adelaide and Monash Universities, Australia. Today he is Director of the National Centre for Epidemiology and Population Health at the Australian National University, Canberra, Australia. From 1994 to 2001 he was Professor of Epidemiology at the London School of Hygiene and Tropical Medicine. His research has encompassed occupational diseases, nutrition and cancer, environmental health hazards, and the links between sustainable development and health. Since 1990, Dr. McMichael has chaired the assessment of human health risks for the UN Intergovernmental Panel on Climate Change.
### THURSDAY OCTOBER 24TH, 2002

*World Trade and Convention Centre and Delta Halifax*

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>08:00 – 08:30</td>
<td><strong>Conference Registration</strong></td>
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<td></td>
<td>World Trade and Convention Centre – Highland Suite 9-10</td>
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<tr>
<td>08:30 – 09:00</td>
<td><strong>Welcome</strong> - Dr. Judy Guernsey [Conference Chair]</td>
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<td><strong>Greetings</strong> - Dr. Martha MacLeod, Dr. Jim Dosman [CRHRS Co-Chairs]</td>
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<td>Announcements</td>
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<td></td>
<td>World Trade and Convention Centre – Highland Suite 9-10</td>
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<tr>
<td>09:00 – 10:00</td>
<td><strong>Keynote Address</strong></td>
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<td></td>
<td>Dr. John Humphries</td>
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<td></td>
<td>“Progress over the past decade in Rural Health in Australia - lessons in workforce issues, service provision and consumer satisfaction”</td>
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<td>World Trade and Convention Centre – Highland Suite 9-10</td>
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<tr>
<td>10:00 – 10:30</td>
<td><strong>Break</strong></td>
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<tr>
<td>10:30 – 12:00</td>
<td><strong>Concurrent Sessions I</strong></td>
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<tr>
<td></td>
<td>Population Health A - WTCC – Mariner Suite 1</td>
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<td></td>
<td>Population Health B (Rural Women) – WTCC – Mariner Suite 5</td>
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<td></td>
<td>Physical and Work Environments A – WTCC – Highland Suite 9-10</td>
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<tr>
<td>12:00 – 13:00</td>
<td><strong>Networking Lunch</strong></td>
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<td></td>
<td>Bluenose Ballroom – Delta Halifax</td>
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<tr>
<td>13:00 – 14:00</td>
<td><strong>Concurrent Sessions II</strong></td>
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<td></td>
<td>Population Health C – Baronet 1-3 – Delta Halifax</td>
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<tr>
<td></td>
<td>Clinical Research – Baronet 4-6 – Delta Halifax</td>
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<tr>
<td></td>
<td>Physical and Work Environments B – Bluenose Ballroom – Delta Halifax</td>
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<tr>
<td>14:00 – 15:00</td>
<td><strong>Panel Discussion</strong></td>
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<td></td>
<td>– Baronet 1-3 – Delta Halifax</td>
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<td></td>
<td><em>Funding and Resources for Rural and Remote Health Research</em></td>
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<td></td>
<td>Dr. Renee Lyons, CIHR; John Malcom, CHSRF, Aurelia Morgan, Rural Secretariat</td>
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<td></td>
<td>Moderator – Dr. Judith Kulig</td>
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<td>15:00 – 17:00</td>
<td><strong>Research Formation and Meetings Group</strong></td>
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<td>Baronet Ballroom 1-3 – Delta Halifax</td>
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<td></td>
<td>Chair – Dr. Martha McLeod</td>
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<tr>
<td>17:00 – 18:00</td>
<td><strong>Reception</strong></td>
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<td>– open bar</td>
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<td></td>
<td>Bluenose Ballroom – Delta Halifax</td>
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<tr>
<td>19:00 – 21:30</td>
<td><strong>CRHRS Steering Committee Meeting</strong></td>
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<td>McKay/Mayflower room – 1st floor – Delta Halifax</td>
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<tr>
<td>08:30 – 09:00</td>
<td>Continental Breakfast and Poster set up – Bluenose room</td>
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<td>08:30 – 17:00</td>
<td>Poster Viewing – Bluenose Room</td>
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<tr>
<td>09:00 – 10:00</td>
<td><strong>Keynote Address</strong> Baronet Ballroom 1-3</td>
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<td></td>
<td>Dr. Nancy Ross</td>
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<td>“Statistics Canada Data for Population Health Research”</td>
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<td>10:00 – 10:30</td>
<td>Poster Viewing and Break</td>
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<td>Bluenose Ballroom</td>
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<tr>
<td>10:30 – 12:00</td>
<td><strong>Concurrent Sessions III</strong></td>
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<td></td>
<td>Population Health – Baronet 1-3</td>
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<td>Community Health – Baronet 4</td>
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<td>Aboriginal Health – Bluenose Room</td>
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<tr>
<td>12:00 – 13:30</td>
<td><strong>Networking Lunch</strong></td>
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<td>Presenters attend Posters 1:00 to 1:30</td>
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<td>Bluenose Ballroom</td>
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<tr>
<td>13:30 – 15:00</td>
<td><strong>Concurrent Sessions IV and Symposium</strong></td>
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<tr>
<td></td>
<td>Population Health – Baronet 1-3</td>
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<td>Community Health – Baronet 4</td>
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<td>Health Care Organization – Baronet 5-6</td>
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<td></td>
<td>Symposium – Rural Children’s Health – Bluenose Room</td>
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<tr>
<td>15:00 – 15:15</td>
<td><strong>Break</strong></td>
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<td>15:15 – 16:45</td>
<td><strong>Concurrent Sessions V</strong></td>
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<td>Population Health – Baronet 1-3</td>
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<td>Community Health – Baronet 4</td>
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<td>Health Care Organization – Baronet 5-6</td>
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<tr>
<td>18:00 – 18:30</td>
<td><strong>Reception – open bar</strong></td>
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<td>Bluenose Ballroom</td>
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<tr>
<td>18:30 – 21:00</td>
<td><strong>Banquet Dinner – Bluenose Room</strong></td>
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<td><strong>Keynote Address</strong>: Dr. Doug Crossman</td>
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<td>“View from the Front Line: The disconnect between population health determinants and service systems in rural Canada and the implications for policy development and research”</td>
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<td>08:30 – 09:00</td>
<td><strong>Continental Breakfast</strong> – Bluenose Ballroom</td>
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<td>09:00 – 10:00</td>
<td><strong>Concurrent Sessions VI</strong></td>
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<td>Population Health – Baronet 1-3</td>
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<td>Population Health – Baronet 4-6</td>
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<td>Health Care Organization - Bluenose</td>
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<td>10:00 – 10:30</td>
<td>Break</td>
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<td>10:30 – 12:00</td>
<td><strong>Concurrent Sessions VII</strong></td>
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<td>Population Health – Baronet 1-3</td>
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<td>Population Health – Baronet 4-6</td>
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<td>Health Care Organization - Bluenose</td>
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<tr>
<td>12:00 – 14:00</td>
<td><strong>Lunch and Annual Meeting</strong></td>
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<td>Canadian Rural Health Research Society – all welcome</td>
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<td>Bluenose Ballroom</td>
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<tr>
<td>14:00 – 17:00</td>
<td><strong>Planning Meeting - Canadian Rural and Remote Health Study</strong></td>
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<td>Bluenose Ballroom</td>
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<td>19:00</td>
<td><strong>Halifax Historic Feast Dinner Theatre</strong></td>
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<td>MTT Centre, Barrington Street</td>
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</table>
FULL PROGRAM
08:00 – 08:30  Conference Registration  
**Place:** World Trade and Convention Centre – Highland Suite 9-10

08:30 – 09:00  Welcome and Greeting  
**Place:** World Trade and Convention Centre – Highland Suite 9-10

09:00 – 10:00  **Keynote Speaker:**  
“Progress Over the Past Decade in Rural Health in Australia - Lessons in Workforce Issues, Service Provision and Consumer Satisfaction”  
*Dr. John Humphries, Monash University School of Rural Health, Bendigo, Victoria, Australia*

10:00 – 10:30  Break

10:30 – 12:00  **CONCURRENT SESSIONS:**  
**Session I: POPULATION HEALTH**  
**Place:** WTCC – Mariner Suite 1  
**Chair:** Barbara Gfellner

01PH-O  Exploring the Development of Informal and Voluntary Care in Rural Ontario: A 'Snap-Shot' of the 1990s  
*Mark W. Skinner, Mark W. Rosenberg, Queen's University, Kingston, Ontario*

02PH-O  Similarities and Differences Between Rural and Urban Home Care Users in Canada  
*Dorothy Forbes, Bonnie Janzen, University of Saskatchewan, Saskatoon, Saskatchewan*

03PH-O  The Challenges of Doing Research and Delivering Services in Rural Areas: Aging in Manitoba, 1971-2001  
*Betty Havens, University of Manitoba, Winnipeg, Manitoba*
Session II: POPULATION HEALTH

Place: WTCC – Mariner Suite 5

Chair: Shelley Kirychuk

04PH-O "An Historical Overview of the Impact of Social and Economic Restructuring on Women's and Children's Health in Stephenville and Main Brook, Newfoundland, 1949-2000"
Ingrid Botting, Department of Sociology and Newfoundland and Labrador Centre for Applied Health Research, Memorial University, St. John’s Newfoundland

05PH-O A National Rural and Remote Women's Health Project
Margaret Haworth-Brockman, Prairie Women's Health Centre of Excellence, Winnipeg, Manitoba; Marilou McPhedra, National Network on Environments and Women's Health, York University, Toronto, Ontario

06PH-O Willing a Way: Gender and Health Planning
Margaret Haworth-Brockman, Lissa Donner, Kay Willson, Prairie Women's Health Centre of Excellence, Winnipeg, Manitoba

Session III: PHYSICAL AND WORK ENVIRONMENTS

Place: WTCC – Highland Suite 9-10

Chair: Don Voaklander

07PWE-O Influence of Obesity and Time Course of Inflammation After Exposure of Naïve Subjects to a Swine Confinement Building (SCB)
Yvon Cormier, Evelyne Israël-Assayag, Pascal Martineau, Centre de Pneumologie de l'Hôpital Laval, Ste-Foy, Quebec

08PWE-O Outbreak of Hypersensitivity Pneumonitis in a Hard Wood Transformation Plant
Caroline Duchaine, Department de biochimie et de microbiologie; Marc Veilette, Yvon Cormier, Anne Mériaux, Evelyne Assayag, Caroline Duchaine, Centre de recherche, Hôpital Laval, Institut Universitaire de Cardiologie et de Pneumologie de l'Université Laval, Ste-Foy, Quebec
09PWE-O  Sensitization to Airborne Moulds in Peat Moss Factory Workers
Yvon Cormier, Pascal Pageau, Anne Mériaux, Evelyne Assayag, Caroline Duchaine, Unité de Recherche, Institut de Cardiologie et de Pneumologie de l'Université Laval, Ste-Foy, Quebec

12:00 – 13:00  Networking Luncheon
Place: Bluenose Room – Delta Halifax

13:00 – 14:00  CONCURRENT SESSIONS:

Session IV:  POPULATION HEALTH
Place: Baronet 1-3
Chair: Norma Stewart

10PH-O  Palliative Care in Rural Newfoundland and Labrador: Differences Among Social Groups in their Capacity to Access Quality End-Of-Life Care
Honna Janes-Hodder, Memorial University of Newfoundland, Paradise, Newfoundland

26PH-O  Evaluation of the PARTY Program in Northern BC
David Steindl, Nechako Centre, Prince George Regional Hospital, Northern Health Authority, British Columbia; Cindy Hardy, Kathryn Banks, University of Northern British Columbia, Prince George, British Columbia

Session V:  CLINICAL RESEARCH
Place: Baronet 4-6
Chair: Patricia Martens

12CR-O  Development of a Screening Program for a Large Hereditary Colon Cancer Family in Rural Newfoundland
Jane S. Green, Memorial University of Newfoundland, St. John’s, Newfoundland; Marian Crowley, Newfoundland and Labrador Medical Genetics Program; John Sheldon, New World Island Clinic, Newfoundland; Lisa Spirio, Whitehead Institute Cambridge, Massachusetts
13CR-O  The Prevalence of Medical Conditions in Urban and Rural Senior Males  
Karen D. Kelly, Don Voaklander, University of Northern British Columbia, Prince George, British Columbia; B.H. Rowe, N. Yiannakoulias, University of Alberta, Edmonton, Alberta; L. Svenson, D. Schopflocher, Alberta Health and Wellness

Session VI:  
PHYSICAL AND WORK ENVIRONMENTS
Place: Bluenose Ballroom
Chair: Yvon Cormier

14PWE-O  New Research Tools for Occupational Health & Safety Research  
Pablo Navarro, SafetyNet, Newfoundland and Labrador Centre for Applied Health Research, St. John's, Newfoundland; Barbara Neis, Memorial University; Marian Binkley, Judith Guernsey, Dalhousie University, Halifax, Nova Scotia

15PWE-O  Medication Use, Co-morbidity and Injury in Older Male Farmers  
Don Voaklander, Karen Kelly, University of Northern British Columbia, Prince George, British Columbia; Brian Rowe, Niko Yiannakoulias, University of Alberta, Edmonton, Alberta; Larry Svenson, Don Schopflocher, Alberta Health and Wellness; Will Pickett, Queen's University, Toronto, Ontario

14:00 – 15:00 Panel Discussion: Funding Opportunities for Rural and Remote Health research
Place: Baronet Ballroom
15:00 – 17:00  Research Formation and Meetings Group  
**Place:** Baronet Ballroom 1-3  
**Chair:** Martha MacLeod

17:00 – 18:00  Reception – Open Bar  
**Place:** Bluenose Ballroom

19:00 – 21:30  Steering Committee Meeting  
**Place:** MacKay/Mayflower rooms
07:00 – 08:30  Posters set up  
Place: Bluenose Ballroom

08:30 – 09:00  Continental breakfast

09:00 – 10:00  Keynote speaker:  
Dr. Nancy Ross, McGill University and Statistics Canada.  
“Statistics Canada Data for Population Health Research”
Place: Baronet 1-2

10:00 – 10:30  Break and Poster viewing  
Place: Bluenose Ballroom

10:30 – 12:00  CONCURRENT SESSIONS:

**Session I:**  
**Place:** Baronet Ballroom 1-3  
**Chair:** Michael MacLean

16PH-O  
Self-Efficacy Beliefs and Functional Decline in Rural Community-Living Elders  
Frank J. Elgar, Department of Psychology, Dalhousie University, Halifax, Nova Scotia; Graham J. Worrall, Centre for Rural Health Studies, Memorial University of Newfoundland, Whitbourne, Newfoundland; Roger Thomas, Department of Family Medicine, University of Calgary, Alberta; John Knight, Avalon Health Care Institutions Board, Newhook Community Health Centre, Whitbourne, Newfoundland

17PH-O  
Accessing Health Services: The Experience of Elderly Rural Couples  
Fran Racher, School of Health Studies, Brandon University, Brandon, Manitoba

18PH-O  
Home Sweet Home? Experiences of Place for Elderly In-migrants and Aged-in-Place Persons in Small Town British Columbia  
Denise Cloutier-Fisher, Centre on Aging and Department of Geography, Victoria, British Columbia
Session II: COMMUNITY HEALTH
Place: Baronet 4-6
Chair: Michel Morton

19CH-O Building Research Capacity in Rural Areas: A Case Study
Mike Pennock, Dalhousie University, Halifax, Nova Scotia; Carole MacKinnon, Western Nova Scotia Public Health Services; Trisha Cochrane, Annapolis Valley District Health Authority

20CH-O Increasing the Capacity of Rural Communities to Use Research for Policy Change and Development
Renée Lyons, Lynn Langille, Atlantic Health Promotion Research Centre, Dalhousie University, Halifax, Nova Scotia; Arthur Bull, Ishbel Munro, Coastal Communities Network; Steven Dukeshire, RCIP Project Coordinator

21CH-O Assessing the Relevance of the Community Capacity Literature for Rural Health Policy-making and Programming
Neale Smith; Lori Baugh, Research & Evaluation David Thompson Health Region, Red Deer, Alberta

Session III: ABORIGINAL HEALTH
Place: Bluenose Ballroom
Chair: Bruce Minore

22ABH-O Learning from Linkages: Health and Healthcare Use Patterns of Manitoba's Registered First Nations People
Patricia J. Martens, Laurel Jebamani, Manitoba Centre for Health Policy, Department of Community Health Sciences, University of Manitoba, Winnipeg, Manitoba
23ABH-O Exploring Key Determinants of Success in using a Capacity Development Model to Enhance Delivery of Culturally Appropriate Early Childhood Care and Community Wellness Promotion for Families in First Nations
Jessica Ball, School of Child and Youth Care, University of Victoria; Silvia Vilches, Graduate Student, Inter-disciplinary Program in Policy and Practice, Faculty of Human and Social Development, University of Victoria (also Associate, First Nationaas Partnership Programs), Victoria, British Columbia

24ABH-O Methodological Discoveries in a Cross-Cultural Participatory Action Research Study of Inuit Family/Kinship and Well-being Across the Lifespan
JoAnne Zamparo, Lakehead University, Thunder Bay, Ontario

12:00 – 13:30 Networking Luncheon
Place: Bluenose Ballroom

13:00 – 13:30 Poster Viewing - Poster Presenters will be at their posters
Place: Bluenose Ballroom

13:30 – 15:00 CONCURRENT SESSIONS:

Session IV: POPULATION HEALTH
Place: Baronet 1-3
Chair: Dorothy Forbes

25PH-O Patterns of Mortality Among Young Canadians Living in Rural and Urban Communities
Claudia Lagacé, Marie Desmeules, Centre for Chronic Disease Prevention and Control, Health Canada, Ottawa; Roger Pitblado, Raymond Pong, Centre for Rural and Northern Health Research Laurentian University, Sudbury; Ray Bollman, Statistics Canada; Robert Semeciw, Yang Mao Centre for Chronic Disease Prevention and Control, Health Canada; Dowler J.M., Health Canada
11PH-O  End-of Life Care in Rural Canada: A Voice of Experience  
*Michael MacLean, University of Regina, Regina, Saskatchewan; Cara Linzmayer, Westview Health Centre, Stony Plain, Alberta*

27PH-O  Adolescents in School-Based Alcohol and Drug Programs in Rural and Northern Manitoba  
*Barbara M. Gfellner, Brandon University, Brandon, Manitoba*

Session V:  COMMUNITY HEALTH  
Place: Baronet 4  
Chair: *Kim Ryan-Nichols*

28CH-O  What Works in Knowledge Translation? Evaluating Manitoba's "Need to Know" Project  
*Sarah Bowen, Patricia Martens, University of Manitoba, Winnipeg, Manitoba*

29CH-O  Empowering Rural Communities to Improve Access to Health Services - Development of Community Well Being Teams  
*Dilys Haughton, Brant Community Healthcare System, Paris, Ontario; Joanna Olivers, Grand River District Health Council; Rebecca Suthris, University of Western Ontario; Bev Aikenhead*

30CH-O  "Building Community Capacity  
*Beth Peterkin, Safe Communities Foundation, Perth, Ontario*

Session VI:  HEALTH CARE ORGANIZATION  
Place: Baronet 5-6  
Chair: *Ray Pong*

31HCO-O  Support of Advanced Practice: The Issues for Nurses in Rural and Remote Canada  
*Donna Bentham, Martha MacLeod, University of Northern British Columbia, Prince George, British Columbia*
32HCO-O  Health Human Resources Planning: A Northern/Rural Perspective  
Gwen Dubois-Wing, Sheldon Tetreault, Pat Stitt, Heather Gray,  
Northwestern Ontario District Health Council, Thunder Bay, Ontario

33HCO-O  Assessing Continuing Education Needs of Nurse Practitioners in Northern and Rural Southern Ontario  
Kate Tilleczek, Raymond Pong, Suzanne Caty, Centre for Rural and Northern Health Research, Laurentian University; Isabelle Michel, Public Health Unit, Sudbury, Ontario

Session VII:  
SYMPOSIUM ON CHILDREN’S HEALTH  
Place: Bluenose Ballroom  
Chair: Joanne Zamparo

34SP-O  The Centre of Excellence for Children and Adolescents with Special Needs: Successes and Challenges in Northern and Rural Health Research  
Julia O'Sullivan, Centre of Excellence for Children & Adolescents with Special Needs, Thunder Bay; Mary Courage, Patricia Canning, Memorial University; Mary Lyon, Kim Kienapple, Mount St. Vincent University; Shirley Tagalik, Margaret Joyce, Government of Nunavut; Alan Bowd, Vanessa Catalan, Lakehead University, Thunder Bay; Margo Greenwood, University of Northern British Columbia, Prince George, British Columbia

15:00 – 15:15  Break
15:15 – 16:45 CONCURRENT SESSIONS:

Session VIII: POPULATION HEALTH
Place: Baronet 1-3
Chair: Dorothy Forbes

35PH-O Inexpensive Means of Caring for Newborn, Young, or Ill Infants
Ann Bigelow, St. Francis Xavier University, Antigonish, Nova Scotia

36PH-O Bringing Birth Back to Community: Midwifery Care in Nunavik, Canada
Vicki Van Wagner, Midwifery, Ryerson University, Toronto, Ontario; Brenda Epoo, Midwife, Inukjuak Maternity Innullitsivik Health Centre

37PH-O A Telehealth Enhanced Partnership for Community Development in Aging and Health
David Ryan, Faculty of Medicine, University of Toronto, Tania Principe, Ontario Institute for Studies in Education, Sylvia Davidson Psychogeriatric Resource Consultation Program, Toronto, Ontario

Session IX: COMMUNITY HEALTH
Place: Baronet 4
Chair: Joanne Zamparo

38CH-O Community Mobilization: Prescription (Opiate) Abuse
Arlene Haddon, Charlotte County Hospital, St. Stephen, New Brunswick

39CH-O Promoting Rural Mental Health Through Video Conferencing: Tapping Into Natural Community Networks
Peter Cornish, Memorial University of Newfoundland, St. John’s, Newfoundland; Kim Osmond; Elizabeth Church; Terrence Callanan; Cheri Bethune, Robert Miller, Memorial University of Newfoundland, St. John’s, Newfoundland
Injuries Are No Accident
Catherine Hynes, Margot Gray, Community Nurse, Resource Centre, NOR-MAN RHA, Flin Flon, Manitoba

Session X: HEALTH CARE ORGANIZATION
Place: Baronet 5-6
Chair: Ray Pong

Nurses' Perspectives and Experiences of Leadership in Small Rural Hospitals: A Grounded Theory Study
Chinnama Baines, The University College of the Cariboo, Kamloops, British Columbia

Voices from the Wilderness: An Interpretive Study Describing the Role and Practice of Outpost Nurses
Denise Tarlier, University of British Columbia, Blind Bay, British Columbia

Creating Service Learning Opportunities for Student Nurses with Community Health Agencies
Kathryn Banks, University of Northern British Columbia, Prince George, British Columbia

15:30 – 17:45 Posters removal

Place: Bluenose Ballroom

18:00 – 18:30 Reception – Open bar
Place: Bluenose Ballroom

18:30 – 21:00 Banquet dinner

Keynote Speaker:
Dr. Doug Crossman, Nova Scotia
“View from the Front Line: The Disconnect Between Population Health Determinants and Service Systems in Rural Canada and the Implications for Policy Development and Research”

Place: Bluenose Ballroom
08:30 – 09:00  Continental breakfast

09:00 – 10:00  CONCURRENT SESSIONS:

Session I:  POPULATION HEALTH
Place: Baronet 1-3
Chair: Fran Racher

44PH-O  Health-Related Quality of Life Research
Alex Michalos, University of Northern British Columbia, Prince George, British Columbia

45PH-O  Building a Framework and Indicators to Assess Health and Quality of Life of Rural Communities
Kim Ryan-Nicholls, Barbara Gfellner, Fran Racher, Renee Robinson, Robert Annis, Rural Development Institute, Brandon University, Brandon, Manitoba

Session II:  POPULATION HEALTH
Place: Baronet 4-6
Chair: Carol Amaratunga

46ABH-O  It's Just So Different Up Here: Continuity of Care for Cancer Patients in Northwestern Ontario First Nation Communities
Bruce Minore, Margaret Boone, Mae Katt, Helen Cromary, Peggy Kinch, Health Sciences North, Lakehead University, Thunder Bay, Ontario

47HCO-O  Where A Cancer Patient Dies: The Effect of Rural Residency
Frederick Burge, Beverley Lawson, Grace Johnston, Nova Scotia Cancer Registry, Dalhousie University, Halifax, Nova Scotia
Session III: HEALTH CARE ORGANIZATION
Place: Bluenose
Chair: Ray Pong

48HCO-O Mental Health Services in Rural and Remote Regions: Adaptation of Best Practice Models
Renée Robinson, Brandon University, Brandon, Manitoba

49HCO-O Rural and Remote Patients Obtaining Secondary-Level Hospital Care Further from Home than Necessary
Neil Hanlon, Geography, University of Northern British Columbia, Prince George, British Columbia

10:00 – 10:30 Break

10:30 – 12:00 CONCURRENT SESSIONS:
Session IV: POPULATION HEALTH
Place: Baronet 1-3
Chair: Fran Racher

50CH-O Rural Volunteerism: Motivational Differences and Organizational Involvement
Barbara Gfellner, Brandon University, Brandon, Manitoba

51PH-O Cost of Volunteering at the Manitoba Agricultural Museum.
Barbara M. Gfellner, Gerald D. Dueck, Brandon University, Brandon, Manitoba
Session V: POPULATION HEALTH
Place: Baronet 4-6
Chair: Margaret Boone

52PH-O Immigrant and Non-immigrant General Practitioners in Rural and Remote Areas in Quebec: Considerations of Attraction and Retention Factors
Myriam Simard, Sociologie Professor, Institut National de la Recherche Scientifique, University of Quebec, Montreal

54MI-O Using Video-Conferencing for Focus Groups in Rural Health Research
Mary Lou Kelley, School of Social Work/Northern Education Centre for Aging and Health, Lakehead University, Thunder Bay, Ontario

Session VI: POPULATION HEALTH
Place: Bluenose
Chair: Ray Pong

55PH-O Which Indicators and Which Borders? Population-Based Information for Manitoba’s Regional Health Authorities
Randy Fransoo, Patricia Martens, University of Manitoba, Winnipeg, Manitoba

56PH-O Integrated Care Models In Maternity Care: A Potential Solution for Canada's Rural and Remote Communities
Judy Rogers, Ryerson University, Alert Bay, British Columbia

12:00 – 14:00 Lunch and Annual Meeting of the Canadian Rural Health Research Society
Place: Bluenose Ballroom

14:00 – 17:00 Planning meeting of the Canadian Rural and Remote Health Studies
Place: Bluenose Ballroom

19:00 Halifax Historic Feast Dinner Theatre
Place: MTT Centre, Barrington Street
Poster Set up  
Place: Bluenose Ballroom

10:00-10:30  Poster Viewing

13:00-13:30  Poster Presenters will be at their posters  
Place: Bluenose Ballroom

POPULATION HEALTH

01PH-P  Mortality and Disease Incidence Due to Less Common Causes: A Focus on Rural and Northern Ontario  
Roger Pitblado, Laurentian University, Sudbury, Ontario

02PH-P  Defining Rural and Remote: A Preliminary Survey  
Michel A. Morton, School of Nursing, Lakehead University, Thunder Bay, Ontario

03PH-P  The Need to Know: Collaborative Research by the Manitoba Centre for Health Policy, the Rural and Northern Health Authorities and Manitoba Health  
Elaine Burland, Patricia Martens, Charlyn Black, Manitoba Centre for Health Policy, University of Manitoba, Winnipeg, Manitoba

04PH-P  Frailty in Rural Canada: Results from the Canadian Study of Health and Aging  
Chris MacKnight, Robin Latta, Susan Kirland, John D. Fisk, Kenneth Rockwood, Dalhousie University, Halifax, Nova Scotia

05PH-P  Enhancing Prediction of Breast Cancer Screening Participation Among Women in New Brunswick  
Aroha Page, Faculty of Nursing, University of Windsor, Windsor, Ontario; K. Chapman, Region 3 Health Department, Fredericton, New Brunswick; K. Rush, University of South Carolina
07PH-P  A Survey of Food and Nutrition Policies in Saskatchewan School Division
Carol J. Henry, Wendy Dahl, University of Saskatchewan, Saskatoon, Saskatchewan; Derek Allison, University of Western Ontario, London, Ontario

09PH-P  Rural/Urban Differences in Attachment Characteristics and Behavioural Problems in Male Young Offenders
Frank J. Elgar, Department of Psychology, Dalhousie University, Halifax, Nova Scotia; John C. Knight, Avalon Health Care Institutions Board; Graham J. Worrall, Centre for Rural Health Studies, Memorial University of Newfoundland; Gregory Sherman, Department of Family Medicine, Memorial University of Newfoundland, Whitbourne, Newfoundland

21PH-P  The Centre of Excellence for Child and Youth Friendly Prairie Communities
Elicia Funk, Noreen Ek, Centre of Excellence for Child and Youth Centred Prairie Communities, Brandon University, Brandon, Manitoba

22PH-P  Outcome Analysis of a Pharmacist-Directed Seamless Care Service: A Randomized-Controlled Trial
Ann Nickerson

PHYSICAL AND WORK ENVIRONMENTS

10PWE-P  Microflora of Air and Peat in Peat Moss Processing Plants in Eastern Canada
Anne Mériaux, Pascal Pageau, Yvon Cormier, Nicole Goyer, Caroline Duchaine Centre de Recherche, Hôpital Laval, Institut Universitaire de Cardiologie et de Pneumologie de l'Universite Laval Ste-Foy, Quebec
11PWE-P  Snow Crab Occupational Asthma in Newfoundland and Labrador: Prevalence, Exposures, Health and Socio-Economic Consequences, and Prevention  
Lise Horth-Susin, Principal Investigators: Barbara Neis, Andre Cartier, Michael Jong, Sharon Buel, Goerge Fox, Bob Helleur, Samuel Lehrer, Mark Swanson, Nacy Hounsell, Ray Green, Yuri Mazychka, Valley Regional Hospital, Kentville, Nova Scotia

13PWE-P  Non-Responders And Responders to Endotoxin Show Different Non-Pulmonary Effects  
J. Dosman, S. P. Kirychuk, A. Senthilselvan, Y. Fukushima, P. Pahwa Institute of Agricultural Rural and Environmental Health (IAREH), Centre for Agricultural Medicine, University of Saskatchewan, Saskatoon, Saskatchewan; Y. Cormier Centre de Pneumologie do l’Hopital Laval, Ste-Foy, Quebec

HEALTH CARE ORGANIZATION

14HCO-P  The Nature of the Extended/Expanded Nursing Role in Canada  
Marcy Greene, Joanne Simms, Memorial University of Newfoundland, St. John’s, Newfoundland

15HCO-P  Rural Maternity Nursing in Ontario  
Jennifer Medves, Peter J. O'Neill, Sam Shortt, Queen's University, Kingston, Ontario; Barbara Davies, University of Ottawa, Ontario; Judy Rogers, Ryerson University, Toronto, Ontario

16HCO-P  The Affect of Telephone Triage Advice on Informal Care Behaviour  
John C. Hogenbirk, Raymond W. Pong, Sandra Lemieux, Centre for Rural and Northern Health Research, Laurentian University, Sudbury, Ontario

17HCO-P  Who Called Ontario’s Telephone Triage Pilot Project?  
John C. Hogenbirk, Raymond W. Pong, Sandra Lemieux, Centre for Rural and Northern Health Research, Laurentian University, Sudbury, Ontario
COMMUNITY HEALTH

18CH-P  Midwifery Education in the Canadian Arctic: Teaching and Learning Across Cultures  
Vicki Van Wagner, Ryerson University, Toronto, Ontario; Brenda Epoo, Innulitsivik Health Centre, Nunavik, Quebec

19CH-P  Caring Community Contacts  
Arlene Haddon, Carlotte County Hospital, St. Stephen, New Brunswick

20CH-P  Aging well in Rural Places: Development and Pilot Testing of a Community-Based Strategy for Addressing Depression in Seniors in Atlantic Canada  
Lynn Langille, Research Consultant, Renne Lyons, Director, Maureen Rogers, Atlantic Regional Coordinator “Aging Well in Rural Places” Project, Atlantic Health Promotion Research Centre, Dalhousie University, Halifax, Nova Scotia; Arlene Haddon, Carlotte County Hospital, St. Stephen, New Brunswick

Remove posters at 15:30–17:00
ORAL PRESENTATIONS
This paper investigates the relationship between public institutional restructuring, the changing nature of local governance and the provision of health care services, and places it within the context of rural communities in Ontario. In particular, it considers the ascendancy of informal and voluntary sectors with respect to home care in rural Ontario, and features an analysis of data from the National Population Health Survey and the National Survey of Giving, Volunteering and Participating, representing user (demand) and provider (supply) perspectives respectively.

The results provide a cross-section of informal and voluntary home care in the mid-to-late 1990s, which indicates that informal and voluntary sectors are major players in the local organization and delivery of health care services in rural communities. This suggests that the current state of health care provision in rural communities of Ontario is affected very much by the changing nature of local governance associated with public institutional restructuring. The 'snap-shot' of health care in rural communities presented in this paper highlights the need to examine further the relationship between governance and health care services at the local level. It also points to the need for more detailed data sets that integrate health, informal and voluntary care data at meaningful geographical and administrative scales to reflect clearly rural communities in Canada.
A number of factors have contributed to an increased demand for home care services in Canada. With the aging of the Canadian population and a shift in philosophy favoring community-based care, greater numbers of those over 80 years of age will remain within their communities rather than be institutionalized. Health care restructuring has resulted in the closure of thousands of acute care and long-term care beds, earlier discharges from hospital, and increased outpatient surgeries. Increased longevity will increase the number of people with chronic, debilitating health conditions. However, despite such trends, relatively little is known about the characteristics associated with home care use in Canada, and, in addition, whether these characteristics differ for those living in urban and rural areas. Therefore, using data from two waves of Statistics Canada's National Population Health Survey (1996/97 and 1998/99), the present study will 1) describe the socio-demographic and health status correlates of home care users in urban and rural Canada and 2) examine whether the characteristics most strongly predictive of home care use vary as a function of urban and rural status. Descriptive, comparison, and logistic regression analyses will be conducted. The findings will assist practitioners, program planners, and policy makers in understanding the trends in home care use in urban and rural areas and ensuring that those who most need home care receive the service.
Aging in Manitoba (AIM) is the longest continuous study of aging in Canada, having been initiated in 1971. AIM has involved almost nine thousand seniors, half of whom live in rural and remote areas of the province. The results from AIM have been used in developing policies, services and activities with older Manitobans. Interviewers who travel throughout the province to speak with seniors in their own homes or in care facilities undertake the survey. Interviewers are chosen for skills in relating to older individuals, knowledge of rural areas.

Manitoba is 640,000 square miles with many remote areas. Two changes to density have occurred, while remote interviews have become very sparse, increased concentration happens in some areas that is, cities in the north and towns in rural areas as seniors migrate toward services. In current surveys, most interviewers work alone for the majority of the time limiting their opportunity to discuss coding conventions with other interviewers. With 1000 participants, more co-ordinating time was spent with relatively simple coding questions that would have been worked out previously in the field and co-ordinating time had to be spent in assisting interviewers with reading detailed road maps.

In delivering health, social and commercial services to the older population in a province that includes vast tracts of land that are sparsely settled, many of the same challenges are faced. The amount of time that is spent locating and delivering products and services in these areas are very much more time consuming than they are in urban and more densely populated rural area. The population density in Manitoba is just over four persons per square mile, despite the existence of a major metropolitan area of 700,000 people in only 600 square miles. Service delivery to seniors is even more difficult than to the general population as older persons have tended to remain in rural areas, while younger people have moved to ever increasingly larger communities. This has produced two problems, first, older persons, many of whom live alone, are increasingly isolated and secondly, younger persons, whom one depends on to deliver services, become less available in these more isolated areas.
The proposed paper encompasses the first stage of my post-doctoral research on the effects of intersectoral collaboration in mitigating the health risks to women and children residing in resource-dependent communities undergoing restructuring. The paper will provide a comparative historical overview of the interaction between restructuring and the determinants of women's and children's health in the forestry-dependent communities of Stephenville and Main Brook, Newfoundland between 1949 and 2000. It will rely primarily on archival sources of government, voluntary organizations, and health services, as well as the available secondary data on health status.

Unlike fishery communities, Stephenville and Main Brook are former company towns which are representative of marginal resource-dependent communities -- one based on logging and the other with a substantial dependence on pulp and paper. Both are located in the same provincial and federal jurisdiction in terms of social and economic policy. They also differ in important ways, particularly in regard to their health services history. Between 1940 and the 1960s, Stephenville became the site of an American military base with its own health services and cottage hospital, while Main Brook has only ever had limited local health services with those administered by the voluntary, philanthropic Grenfell mission. By drawing on examples such as these, the paper will demonstrate how the similarities and differences between these communities make them crucial for understanding the long-term interactions between women's and children's health status, restructuring and several health determinants. Restructuring will be understood as multidimensional, occurring only social, economic, and environmental lines and as posing risks to the health of vulnerable groups such as women and children by changing health determinants such as gender, income employment, and geographic region. Such an approach will show that in order to devise health strategies to minimize disparities in health status we must first understand that these interactions are inherently historical process that take place within the specific gender, class, and regional contexts that shape people's everyday lives.
The Centres of Excellence for Women's Health (CEWH) are in year two of a cross-centre, national project on the health issues affecting women who live in rural, remote and northern communities. Funded by the Women's Health Bureau, and in collaboration with the Health Canada Rural Health Office, the project will help shape a research agenda and policy framework for women's health. The outcomes will coincide with the strategic initiatives of the CIHR and the CRHS. The project is headed by a national steering committee of the Executive Directors of the CEWH and Health Canada representatives. B. Neis (Memorial) chairs a multi-disciplinary Research Committee. The presenters co-chair the steering committee.

The project has four distinct phases. The first is a comprehensive review of the literature as it pertains to women's health issues. Conducted under the direction of P. Wakewich (Lakehead), the review was used to initiate discussion at an invitational roundtable at the Second Annual Meeting of the Rural and Remote Scientific Consortium (phase 2).

In the spring 2002, each Centre is hosting two or more regional, facilitated focus groups to gather qualitative data in both official languages. The women (including northern Aboriginal women) are asked to consider: What is rurality? How does living/working in a rural context influence the health issues you have? What suggestions would you make for change in the way health care is delivered?

Phase four of this project will be a national Think Tank to be held in January, 2003. The presenters will outline the background and methodologies used for this comprehensive project. We will share the results of the literature review and the initial findings of the qualitative data. A draft research agenda and policy framework will be prepared for presentation at the meetings.
In 1999 Prairie Women's Health Centre of Excellence (PWHCE) released Invisible Women: Gender and Health Planning in Manitoba and Saskatchewan and Models of Progress. Invisible Women examined the preparedness of newly regionalized health authorities to include gender-sensitive programming and gender-based analysis in planning documents. Following the report's release, prairie provincial governments and local health authorities approached PWHCE to collaborate in developing better, relevant planning documents for women's health.

For over two years the presenters have been collaborating with provincial and regional health policy-makers and planners to develop practical applications of gender-based analysis. As well, the project is intended to make policy-makers and planners aware that women's health is more than reproductive and breast health. Our intention is to provide relevant examples of gendered consideration of health data and epidemiological reports. The applications would allow planners to incorporate gender sensitivity in existing planning processes.

Despite the good will of all involved, and a clear work plan, the project has at times been bogged down in governmental machinery. The presenters will describe the process and progress of the collaboration and our efforts to proceed with affecting change in policy and planning for health care that is targeted for consideration of women's health.
Exposure of naïve subjects to SCB induces a local and systemic inflammatory response. Fat tissue can release and store inflammatory mediators. This study was done to evaluate the influence of obesity on the response to SCB exposure and look at the time course of the response. Fourteen healthy male volunteers were exposed for 5 hours to a SCB. Subjects were selected to represent a range of body mass indexes from 18 to 30 Kg/M². Total blood cell counts, serum levels of IL-6, TNF, C-reactive protein (CRP) were measured before and 2, 24, 48 and 72 hours after SCB exposure. Nasal lavage was performed before and 2 hours after exposure and total cell counts as well as supernatant IL-8 levels were determined.

All the subjects developed a transient inflammatory response. No significant differences were observed between normal weight and overweight subjects for WBC, nasal lavage cell count and nasal lavage IL-8 levels. However, higher levels of CRP, TNF and IL-6 (except for the 2h post exposure) were detected in overweight subjects compared to lean individuals. The difference can be explained by the underlying effect of obesity on systemic inflammation, not by a difference in the acute response. Since CRP and IL-6 have been proposed as predictive markers of cardiovascular disease (CVD) risk, the potentiating effect of a contaminated environment may put obese people more at risk for developing CVD.
Introduction: Two workers employed in a hard wood floor manufacturing plant presented symptoms suggestive of HP. The diagnosis was confirmed by clinical evaluation, the finding of patchy ground glass infiltrations on high resolution computed tomography, and a lymphocytic alveolitis on bronchoalveolar lavage (205x10⁶ total cells, 52% lymphocytes and 128x10⁶ cells, 64% lymphocytes). The company employed 200 workers. Rough wood is dried in kilns where the temperature is slowly increased up to 70°C and returned to outside temperature over a period as long as 60 days in the case of Oak wood. This process is believed to allow mouldy growth on the wood surface and wood is subsequently brought inside the plant for processing.

Methods: Airborne contaminants were analyzed in the plant where the HP cases were seen and in another plant where no health problems had been reported (both plants perform the same transformation but used different wood species and drying procedures). Dust samples from dust-removing system and oak wood planks (before and after drying) were collected from the problematic plant. Blood samples, spirometry, and symptoms’ questionaires were obtained from eleven employees who worked in the same section of the plant as the two index cases.

Results: Microbial analyses of the air of the problematic plant revealed larger quantities of Paecilomyces than that of the non-problematic plant. Dried and moldy oak planks had a high concentration of Paecilomyces growth on their surface whereas non-dried planks had a majority of Penicillium moulds. Paecilomyces was the only important mold cultured from dust samples. One subject (a smoker) had symptoms suggestive of HP and his BAL revealed a lymphocytic alveolitis (123.6X10⁶ total cells, 26% lymphocytes) thus confirming that he had HP. All workers, including the three cases of HP, had positive specific IgG antibodies to Paecilomyces, the cases and one controls had the highest levels. Conclusion. We report a high prevalence of HP (3/13) and a 100% sensitization to molds of workers in a hard wood processing plant. This prevalence is much higher than what is commonly seen in other environments associated with HP (ex: dairy barns). The drying process is probably responsible for the massive contamination.
Peat moss factory workers are exposed to mould contaminated dusts. We previously described cases of hypersensitivity pneumonitis in these workers. The goal of the present study was to evaluate the incidence of sensitization to Monicillium and Penicillium (major moulds found in peat dust) in workers exposed to stored peat moss and the health impact of the sensitization. One hundred and twenty eight workers from 12 peat moss processing plants were recruited for the study. A venous blood sample and forced expiratory flow measurement were obtained for each worker. Blood samples were also obtained from 42 non-exposed control subjects. Serum levels of specific antibodies were measured by ELISA. Air samplings from each plant were obtained to measure the levels of airborne moulds. Thirty eight (38%) workers had a positive serum reaction to both moulds. The percentage of positive workers varied from plant to plant, ranging from none of 23 workers to 11 out of 18. This variability was not correlated with the airborne levels of moulds. FEV1 was lower in the workers with positive antibodies compared to the seronegative workers (p=0.02). We conclude that there is a high prevalence of mould sensitization in peat moss factory workers and that this sensitization may have a negative respiratory health impact. Institut Robert-Sauvé Santé et Sécurité du Travail (IRSST).
Palliative care refers to multidisciplinary care provided to individuals with terminal illness and their families. While its first priority focuses on relief from physical suffering, palliative care also strives to ease the emotional, spiritual, social, and financial burdens experienced by the dying and the bereaved. Newfoundland and Labrador faces particular obstacles in its efforts to provide quality health care services. In addition to its small population and changing demographics, the provincial government must provide services to individuals in more than 700 communities dispersed over a large geographic area. Regionalization of health care services occurred in Newfoundland and Labrador during the 1990-92s, which resulted in the creation of fourteen regional health boards. Despite the stated purpose of regionalization, which was meant to enhance the provision of services, reports indicate that quality end-of-life care remains inaccessible to many Newfoundlanders and Labradoreans. This paper uses insights from political economy to explore contemporary inequalities in access to palliative care in rural and urban Newfoundland and Labrador as well as the relationship between these inequalities and the restructuring of health services in the 1990-92s.
There has been some recent research on issues surrounding end-of-life care or palliative care in rural areas of Canada. A recent model has been developed that suggests nine components for end-of-life care in rural Canada for health care and social service providers. These components relate to a philosophy of rural palliative care, maintaining the integrity of the rural community, accessibility of services, teamwork in the provision of palliative care in rural areas, the guidance of a palliative care consultant, flexibility of providing services, education for health care and social service providers, social support for family members and formal care providers and cultural awareness. There has been no research about how the components of this model would relate to end-of-life care for individuals receiving this kind of care. The purpose of this presentation is to consider the components of this model of palliative care in rural areas in a case study format from the perspective of a woman who is receiving end-of-life care in a rural area. We will present the voice of experience on how these components impact on the end-of-life care that our respondent is receiving. We will develop questions for practice, research, education and policy for end-of-life care in rural Canada based on the experience of our respondent.
Development of a Screening Program for a Large Hereditary Colon Cancer Family in Rural Newfoundland.

Jane S. Green, Memorial University of Newfoundland, St. John’s, Newfoundland; Marian Crowley, Newfoundland and Labrador Medical Genetics Program; John Sheldon, New World Island Clinic, Newfoundland; Lisa Spiro, Whitehead Institute Cambridge, Massachusetts

Introduction: Several members of a large kindred in a Newfoundland outport presented with early colon cancer preceded by multiple polyps. This was recognized as Familial Adenomatous Polyposis (FAP), an autosomal dominant hereditary colon cancer syndrome. We wanted to develop a clinical screening/genetic testing program for first-degree relatives at risk to allow early identification and treatment of subsequent affected individuals.

Methods: Familial histories were taken, medical records reviewed, local clinics held, and collaborative molecular genetic studies conducted. Clinical screening and genetic testing was offered when available to those at risk.

Results: An extended seven-generation pedigree was developed including 96 affected individuals. Because of the variable number, location, and age at onset of polyps in affected individuals, this family was classified as Attenuated FAP (AFAP). Screening with colonoscopy rather than sigmoidoscopy was therefore recommended. This was offered first at the local hospital, and later at secondary care hospitals in central Newfoundland. Of 46 individuals identified because of symptoms, 31 had colon cancer at diagnosis of 50 individuals identified by screening only 1 had invasive colon cancer. The mutation relevant to this family was identified by colleagues at the University of Utah. Genetic testing identified 39 mutation-positive individuals who continue with screening, and 59 mutation-negative individuals who (along with their children) no longer require screening. Local health professionals are now very familiar with this condition and have identified 4 other distant branches of the family.

Conclusion: A successful screening program has been developed for a rural outport community by combining the expertise of local health care professionals, and geneticists in St. John's and Salt Lake City Utah. This resulted in reduction in morbidity and mortality, and increased knowledge for all concerned.
The Prevalence of Medical Conditions in Urban and Rural Senior Males.

Karen D. Kelly, Don Voaklander, University of Northern British Columbia, Prince George, British Columbia; B.H. Rowe, N. Yiannakoulas, University of Alberta, Edmonton, Alberta; L. Svenson, D. Schopflocher, Alberta Health and Wellness

Purpose: It is well recognized that rural individuals have less access to health services that their urban counterparts. The purpose of this research is to determine the diagnostic differential between rural and urban senior males.

Methods: A population based cross-sectional study was conducted for the province of Alberta. All community living (not in a nursing home) male seniors aged 66 and older living in the province of Alberta for the fiscal year 1998/99 were the subjects selected for this study. Seventeen common medical conditions derived from physician claim records were examined for their reported prevalence over a one year period.

Results: There were a total of 124,615 senior males registered with Alberta Health and Wellness during this time period. Of these, 24.3% lived in a rural location. The mean age of the population was 74 years ranging from 66 to 117. Controlling for age and socio-economic status, rural senior males were significantly (p.05) less likely to have diagnoses of: eye/vision problems, urinary tract disorders, dementia, depression, neurosis, osteoporosis, hypertension, cardiovascular disease, diabetes, cancer, and seizures than urban senior males. Controlling for age and socioeconomic status, rural senior males were significantly (p.05) more likely to have diagnoses of osteoarthritis and gait/balance disorders than urban senior males. Overall, controlling for age and socioeconomic status, rural senior males had 0.19 fewer diagnoses than urban senior males (p.01).

Conclusion: This scan of administrative health insurance data indicates that rural senior males have fewer diagnosed illnesses than their urban counterparts. This could be associated with better health of rural seniors or could indicate that rural seniors may be suffering from undiagnosed disease. Further research in this area is warranted.
The Fishing Vessel Safety Longitudinal Analysis (FVSLA) is a part of the SafetyNet Fishing Vessel Safety project. As one of the Community Alliances for Health Research, it brings together a diverse team of researchers, and public-sector and community participants. Coastal and offshore fishing in Newfoundland are predominantly rural occupations that are characterized by hazardous work activities and environments. Current and previous research indicates rising trends in fish harvester injury and fatality rates over the past ten years. In this time period there has been limited research on fishing occupational health and safety, and what research has taken place has been bound by institutional jurisdictions. The result has been a deficit in identifying and understanding the factors that influence fishing safety and a compromised ability to mitigate the hazards of fish harvesting.

Occupational health and safety research in fishing faces many challenges. Collecting data is logistically difficult due to the dispersal of fishing communities and the inaccessible nature of the workplace. Effective quantitative occupational health and safety research requires large samples and a multi-factorial approach. In consultation with community and public-sector stakeholders, the FVSLA has developed a research methodology that would establish a longitudinal (1989-2000), population-based, inter-sectoral and anonymous linked database that will place fish harvester injuries and fatalities in an occupational, environmental and regulatory context.

The data linkage will take advantage of existing information technology and systems and databases maintained by the Department of Fisheries and Oceans and workplace, Health, Safety and Compensation Commission, and supplemented with weather and fishery policy information. Fish harvester privacy and confidentiality is safeguarded by making the linked database anonymous and by employing a Trusted Third Party for the data linkage process. The linked database represents a powerful research tool for occupational health and safety research.
15PWE-O Medication Use, Co-morbidity and Injury in Older Male Farmers.

Don Voaklander, Karen Kelly, University of Northern British Columbia, Prince George, British Columbia; Brian Rowe, Niko Yiannakoulas, University of Alberta, Edmonton, Alberta; Larry Svenson, Don Schopflocher, Alberta Health and Wellness; Will Pickett, Queen's University, Toronto, Ontario

Purpose: The purpose of this research was to determine if there is a potentially causal relationship between medication use and injury among older male farmers in Alberta.

Methods: Using probabilistic linkage between an Alberta Agriculture government registry of farm operators and the Alberta Health Plan registry file, older farmers (aged 66 and older) were identified. Farm related injuries were identified using an E-code search of both hospitalization and emergency department separations for a 3 year period. Cases were matched to controls on age, geographic health region, and index injury date at a ratio of 5:1. Co-morbidity and medication use for each of the cases and controls were derived from population based health system utilization files. Conditional logistic regression was used to determine which medications were related to injury.

Results: Over a 3 year period, a total of 282 farm related injuries were suffered by the linked group. Controlling for co-morbidity, farmers who had stopped taking narcotic pain killers (OR=9.85[95%CI:5.14,18.86]) and non-steroidal anti-inflammatories (OR=2.36[95%CI:1.40,3.98]) 30 days prior to the date of injury were at risk. Those farmers taking sedatives and hypnotics right up until the date of injury were also at risk (OR=3.12[95CI:1.41,6.89]). In addition, those suffering from incontinence (OR=3.71[95%CI:1.60,8.59]) and osteoporosis (OR=4.78[95%CI:1.34,16.99]) were also at risk.

Conclusion: The relationship of medication use and injury in this population is different from those observed in studies of falls in older persons. These data indicate that distraction from either pain or co-morbidity may play a factor in injuries suffered in this active older working population.
Examined relations between self-efficacy beliefs and functional decline over one year in a rural sample of 346 healthy community-dwelling elders aged 75 years and older. Trained research nurses conducted home visits and assessed participants using the General Perceived Self-Efficacy Scale and Resident Assessment Instrument-Home Care. At baseline, participants reported relatively few health problems, low levels of depressive symptoms and low levels of cognitive impairment. Seventy-eight percent of the sample rated their own health as good or excellent. Males scored higher self-efficacy and fewer health problem areas than females. Although none of the participants received home care services, those that felt less capable or in control over all aspects of their lives tended to show more cognitive impairment, lower mood, and more problem areas in which they require assistance. Higher self-efficacy beliefs was found to mediate the rate of functional decline over one year. Weaker self-efficacy beliefs may constrain the individual's range of activities in later years but health promotion initiatives that improve self-efficacy beliefs may help compress morbidity in later years thus allowing more elders to live healthier at home.
Access to health services influences the quality of life and the ability of elderly rural couples to remain together and continue to reside in their own homes. Elderly rural couples are a significant source of knowledge to assist health care providers, planners, policy makers, and researchers in understanding their experiences, needs and priorities in accessing health services. This information is pivotal in designing the delivery of health services to meet the needs of this population. Six couples participated in conjoint conversational interviews with the researcher over a period of six months. All couples resided in rural communities with populations of less than 3000, and some in very small communities with populations of less than 600. Data collection and analysis were conducted using a phenomenological approach to gain an understanding of elderly rural couples experiences in accessing health care. The rural elderly couple is the unit of inquiry, data collection and data analysis. The preliminary findings from the data analysis will be shared and quotes from the couples used to demonstrate the knowledge being generated. A refocus of service delivery from the spousal caregiver or care receiver, to the needs of the couple as a unit has implications for creative and more appropriate service delivery philosophies.
British Columbia is a much sought after retirement location for elderly migrants from other provinces in Canada. Although the overall Census data for 1996 suggests that B.C.’s elderly population (12.8%) is not unlike that of other provinces or the national average (12%), some destinations are known to be more desirable than others based on a host of factors such as historical patterns and amenity attractions. As examples, the city of Victoria, and Sydney on Vancouver Island, and communities along Okanagan Lake such as Kelowna, Summerland and Penticton on the mainland stand out as premier retirement destinations with elderly populations (age 65 and over) in the range of 18-30%.

Using a case study approach, this research project aims to fill an important gap in our present knowledge base regarding why elderly individuals and couples move to small, retirement centers how the experiences of new in-migrants and aged-in-place persons differ and how these small communities support increasing elderly populations with limited social, economic, political and health care resources. Another important question concerns the degree to which these elderly persons can be supported in such communities if (or when), their health declines. This research project will employ an interpretive framework that considers the dynamic characteristics of individuals (or couples) within community settings that must also be considered dynamic, as well as continuously altered by major processes of public sector restructuring. These restructuring/regionalization processes began in 1997 but have accelerated with the election of the new Liberal government in 2002. Based on experiences elsewhere such as Ontario, such changes have particular implications for vulnerable rural populations like elderly and disabled persons.
During the past four years, the Annapolis District Health Authority, Western Nova Scotia Public Health Services and the Population Health Research Unit (PHRU) at Dalhousie University have been collaborating on a variety initiatives with a common goal of enhancing research capacity within this rural area of Nova Scotia. This process has been multi-faceted and has involved workshops pertaining to the utilization of research evidence and data in planning, the review of research and data needs of community health boards, and the development of a number of profiles of community health needs. During 2001, this process resulted in the establishment of a PHRU rural health research office within the Annapolis District Health Authority. The purpose of this office is to expand collaborative activities beyond dissemination and uptake by developing research priorities and by augmenting the participation of the health authority in the development of new proposals. To facilitate this process, the PHRU representative is participating in a number of AVDHA committees including quality management and strategic planning. The purpose of this phase of the collaboration is to test the effectiveness of integrating the academic research capacity of Dalhousie University with the administrative structure of the AVDHA to examine the extent to which this capacity can be used to support local decision-making.

The purpose of this presentation will be to share the experiences of the principal participants in this process with respect to the challenges, costs and benefits of undertaking an intensive collaborative process between rural health services providers and an academic research unit.
Increasing the Capacity of Rural Communities to Use Research for Policy Change and Development.

Renée Lyons, Lynn Langille, Atlantic Health Promotion Research Centre, Dalhousie University, Halifax, Nova Scotia; Arthur Bull, Ishbel Munro, Coastal Communities Network; Steven Dukeshire, RCIP Project Coordinator

The concept of “rural health” encompasses both individual health and the health of communities. Factors that affect the health of rural populations are both external and internal to rural communities. However, there are few mechanisms by which rural residents can provide input into policies that directly affect the sustainability of their communities. When opportunities do arise, rural communities often do not have the capacity to use evidence (e.g., research that clarifies issues and predicts the potential impact of decisions on rural development) to support their position. In a recent series of provincial and national dialogues, rural citizens in Nova Scotia and across Canada highlighted the need for more community involvement in the development of policies that affect their communities. They identified the need for information about their communities, access to tools to impact policy, and knowledge about the policy-making process.

Rural Communities Impacting Policy (RCIP) is a community-university research alliance formed between the Coastal Communities Network and the Atlantic Health Promotion Research Centre to increase the ability of rural communities and organizations in Nova Scotia to access and use social science research in order to influence and develop policy. A “healthy communities” model, incorporating the notions of social, natural, human and economic capital, is being used to guide project activities. This presentation will provide an overview of the community-university research alliance, highlighting capacity-building activities including: the development of policy tools, creation of a rural report, and training of students and community members in “research to policy” processes.
Our presentation will report on a systematic assessment and synthesis of the existing literature on measuring community capacity conducted by the authors. Special emphasis is given to identifying methods, tools and indicators used in rural contexts. The focus will be upon how well the existing literature serves to give practical guidance to community workers, health professionals, and policy-makers.

This research is timely because of the increasing attention being given in Canada to the important role that community capacity building may play in the success of population health and health promotion initiatives. When capacity is actively considered, the resulting projects may be more sustainable, better suited to particular community circumstances, and enable a higher degree of self-determination. Key to progress in this area is crystallizing our ability to measure community capacity in a more precise way. If we cannot measure capacity, we cannot evaluate whether our collective efforts to enhance or build it have been effective.

This presentation will outline our overall approach to the study and describe the bodies of literature which we surveyed. We began with a previously developed framework that identifies seven domains of community capacity -- shared vision, sense of community, participation, communication, leadership, ongoing learning, and knowledge/skills/resources. These domains will be tested against the literature and refined as necessary. We will discuss the analytic protocol that we prepared to critically assess the literature. Our conclusions regarding how well the current literature meets the needs of practitioners and policy-makers will be highlighted.

Next steps in this project (which runs until March 2003) include the validation of our preliminary findings with a cross-Canada panel of experienced community-based researchers and the preparation of a final report that recommends areas for further research, knowledge development and knowledge transfer.
Learning from Linkages: Health and Healthcare Use Patterns of Manitoba's Registered First Nations People.

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Purpose: To examine health and healthcare use of Registered First Nations people (RFN), by Tribal Council areas (TCs) and compared to all other Manitobans (AOM).

Method: The Manitoba Centre for Health Policy, with the Health Information and Research Committee of the Assembly of Manitoba Chiefs, Manitoba Health, First Nations and Inuit Health Branch, and Indian and Northern Affairs Canada, facilitated linking the Status Verification System (SVS) files with provincial health administrative claims for 1994/95-1998/99. This anonymized database generated age/sex-adjusted rates using SAS. For 1999, the sample sizes were 87,328 RFN and 1,057,532 AOM. Indicators included: health status measures (premature mortality rates PMR, potential years of life lost PYLL, life expectancy, diabetes treatment prevalence, lower limb amputation with diabetes comorbidity) and healthcare use patterns (hospitalizations, physician visits, preventive care).

Results: RFN's poorer health status compared with AOM was evident: PMR (6.6 deaths per thousand vs. 3.3) PYLL (male 158 years per thousand vs. 63 females 103 vs. 36) life expectancy (8 years less) diabetes (18.0% vs. 4.54%) amputation (3.1 vs. 0.19 per thousand). Some southern TCs showed the poorest health status. RFN healthcare use rates were higher: hospital discharge (348 per thousand vs. 156) physician visits (6.1 visits per person vs. 4.9). Consult rates were slightly higher for RFN (0.29 visits per person vs. 0.27) overall specialist visit rates were lower (0.90 vs. 1.28 visits per person). Some remote/northern TCs had high consult rates, whereas a southern TC had the lowest rate. Preventive care showed deficit for RFN: one-year-old complete immunization rates (62% vs. 89%) breastfeeding rates (57% vs. 81%) and mammography (26% of 50-69 year old women receiving at least one in two years, vs. 56%).

Conclusions: Hospitalizations and physician visits reflected RFN's poorer health status. Specialist and preventive care rates were lower than expected, and showed unexpected geographical variation.
This workshop will present issues emerging from investigation of determinants of success of a unique, community-driven approach to training in order to strengthen the capacity of communities to support optimal child development and to provide early intervention for children at risk. A previous investigation discovered benefits of this approach such as intergenerational healing and transmission of cultural values, psychosocial transformations among program graduates, and immediate gains in implementation of training to programs to support child well-being. The capacity building model used specifically enhances contextual factors to support community-based development of services identified as priorities by community partners. The necessity of considering contextual development for successful implementation will be explored, comparing community development models and policy-driven models in reconceptualizing services to rural and remote communities.

Preliminary findings from the current three year follow-up of communities that partnered in the delivery of a capacity building training program in early childhood care and development will be presented. These findings point to factors that may be essential to determining the difference between success in development of programs and services and stasis or deflation of the promise shown in community-based training.

The capacity development model of the First Nations Partnership Programs challenges typical methods of planning for service delivery by proposing a partnering approach that develops the context simultaneous with the development of programs. An ecological perspective will be used to contrast this community-driven approach with centrally driven policy solutions. Case examples from B.C. will be used to illustrate the difference between typical policy frameworks which operate at the macro level and this model which focuses on development of the micro-conditions.
New methodologies in participatory action research have emerged in the recent decade. These methodologies allow for increased participation of the subject in the design and development of the research questions and implementation. For rural, remote and particularly cross-cultural research studies these new approaches are paramount in gaining richer data and precise findings and recommendations. This paper will elaborate some of the methodological issues and interactions within context of a current study of Inuit Family/Kinship and Well-being across the Lifespan.

This study takes place in two rural remote communities of Nunavut. Research partners consisting of Inuit and Quallunat have participated in defining the concepts of family for the study. Participatory Action Research methods have guided the study's development. This paper will describe this process and the challenges of understanding the same concepts that are culturally embedded with different meanings. Language and location is a critical part of this understanding and must be considered in the development of concepts. While the English words are the same in both cultures, the meaning is very different. Within Inuit culture what seems to be simplistic in name and place is actually very complex. Lessons have been learned about the interaction between the subject and researcher and the key concepts in implementing a participatory action research model. The paper will also describe the process of defining the concepts and another approach to the interview process and data collection.
Patterns of Mortality Among Young Canadians Living in Rural and Urban Communities.

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This project focuses on patterns of mortality among children, youth and younger adult population (aged 0-44 years old) living in rural areas. This population may have some specific health disadvantages in terms of causes of death and the magnitude of the rural urban gap. The objectives of the project are to identify possible inequities and or differences in patterns of mortality between rural and urban Canada, with a special focus on non-communicable conditions. All the Census Subdivisions (CSD) have been classified according to the Census Metropolitan Area and Census Agglomeration Influenced Zones (MIZ) definition. Age-standardized mortality rates and standardized mortality ratios comparing categories of rurality have been calculated using the Canadian Annual Mortality data 1986-1996. The 1991 population was the standard population used. All cause and cause-specific mortality rates and ratios have been stratified by provinces/territories, rural and urban categories, age (0-4, 5-19, 20-44) and sex.

For all age-groups studied, there is a clear gradient from urban to rural. The standardized mortality ratios show higher risks of dying for people living in rural areas of Canada, for both sexes and the three age groups (Male 20-44 All cause SMR=1.78 Female 20-44 All-cause SMR=1.66 p<0.05). Young Canadians living in rural communities have a higher risk of dying from motor vehicle accidents, other injuries and poisoning and suicide compared to those living in urban areas (p<0.05). Mortality from some chronic diseases such as diabetes and cancer are also elevated among the 20-44 years old living in rural areas. The results of a multivariate analysis using Poisson regression to examine selected social and demographic determinants of health on the rural/urban differences will be presented. These results have implications for rural health policies.
The Prevent Alcohol Related Trauma in Youth (PARTY) program is a one-day hospital-based program for youth in Grade 10. The goal of the PARTY program is to educate youth about the dangers of irresponsible alcohol use. PARTY program participants spend a day at the local hospital where emergency room nurses and police talk to them about injuries typical of motor vehicle accidents, give a tour of the morgue and emergency rooms, and assign disabilities to youth for an experiential learning component conducted while students eat their lunches. The present research used a 12-item self-report questionnaire to evaluate the effectiveness of the program in changing youths' risk-taking beliefs and behaviours. The questionnaire is used routinely by program staff to assess youths' risk-taking beliefs and behaviours before and after participation in the PARTY program. A third measurement occasion, occurring three months after youths' participation in the PARTY program, was added for the present research. The objectives of the research were to (a) analyze the psychometric properties of the questionnaire, (b) assess changes in youths' self-reported risk-taking beliefs and behaviours three months after the PARTY program, and (c) assess gender (male, female), location (rural, urban), and school structure (junior secondary, senior secondary) differences in responses to the PARTY program. The sample for analyses (n = 162) consisted of Grade 10 students from one rural senior secondary school, two urban senior secondary schools, and one urban junior secondary school. Results indicate that the PARTY program had a positive effect on the risk-taking beliefs and behaviours of urban girls and boys, and rural girls, attending senior secondary schools. The PARTY program had no significant effect on the risk-taking beliefs and behaviours of urban junior secondary boys and girls, or rural senior secondary boys. Implications of these findings for policy, practice, and research will be discussed.
School-based intervention is considered the most effective modality to address health and social problems (i.e., use of alcohol, other drugs (AOD) and related behavioural difficulties) among at risk adolescents. Such programs typically involve input and support from family, school and community organizations including health, social services, police ant the judiciary system. This paper focuses on the characteristics of adolescents in a school-based intervention program, the Rural and Northern Youth Intervention Program (RNYIS), housed in schools in rural and Northern Manitoba, and managed by the Addictions Foundation of Manitoba. RNYIS was established to reduce alcohol and drug use as well as gambling problems among youth with difficulties and those affected by these problems. This paper provides a comparison of the intake characteristics of youth in three northern and rural regions of Manitoba: the North, Central and Western Manitoba. The objective was to elucidate differing needs of adolescents in these regions.

The program was available for high school students with 20% in the North, 38% in Western and 42% in Central (or Interlake) regions the mean age of youth at program entry was 16 years they were predominantly male (60%) with substantially more Aboriginal youth in the North Regional differences were seen in terms of students' academic performance and part-time employment as well as reported use of alcohol and other drugs, heavy alcohol use, cigarette use as well as gambling. In terms of the negative consequences for AOD, regional differences were found for youths' charges or convictions, being on probation, accidental overdoses, experiencing blackouts and accidents. Similarly, students' perceptions of their AOD use, program goals and parent involvement varied across the regions. Predisposing factors are considered and findings are discussed in terms of the needs and resources available to youth in different regions with directions for program development.
There is a critical need for research to support the decision making of rural/northern regional health authorities (RHAs), and to further promote and develop models of collaborative research. However, there is little evidence regarding what strategies and approaches are most effective in creating new knowledge directly relevant to rural and northern health, or in building the capacity within rural and northern health regions to use research in planning.

This presentation will outline the approach and strategy developed to evaluate the "Need to Know" Project, a five-year CIHR funded project designed to: create new knowledge develop models for health information infrastructure, training and interaction and disseminate and apply health related research. The Manitoba Centre for Health Policy developed the project in partnership with the eleven Manitoba rural and northern regional health authorities and Manitoba Health. This presentation will outline the benefits of a "utilization-focused" approach to evaluation of knowledge translation activities discuss strategies for involvement of stakeholder groups describe methods used in the evaluation and identify the potential of the evaluation as a strategy for modeling research principles. It will also present a summary of the evaluation of the first year of project activities implications for researchers and for rural/northern health authorities and the role that the evaluation has played in shaping the project and contributing to project objectives. This session will be of interest to academic and community based researchers, planners and decision-makers.
Empowering Rural Communities to Improve Access to Health Services - Development of Community Well Being Teams.

Dilys Haughton, Brant Community Healthcare System, Paris, Ontario; Joanna Olivers, Grand River District Health Council; Rebecca Suthrns, University of Western Ontario; Bev Aikenhead

The Brant Community Healthcare System, created in 1999 with the integration of The Willett and Brantford General Hospitals, serves Brant County with a population of 119,000 (18% is rural). The purpose of a newly created Community Integration portfolio is to develop health networks, and provide decentralized hospital services through satellite services in collaboration with community partners. Building on a successful Community Well Being Team model in Paris, the hospitals facilitated the development of four Rural Well Being Teams to address the broader determinants of health, and increase access to health services and health information for rural women and the rural elderly using a community development model. (Health Canada Grant). Unique partnerships contribute to the strength of the project, including McMaster University (nursing student assessments of rural community capacities), the primary care reform pilot site, Prima Care (computerized patient data base for population and health data), and the Grand River District Health Council (planning, data provision and analyses). Data collected through various means supports Brant County specific research and affirm the ability of small communities to undertake meaningful, valid research. A community assessment is completed for each of the communities, contributing to the richness of local information, and helps to identify community assets and gaps. A community development worker supports each Well Being Team and a team champion to develop an own action plan for its own community. It is expected that future satellite health and health promotion programmes will be delivered in these communities.

An evaluation plan developed for this project includes outcome measures such as increase in community capacity, and networks and services established. Data is collected about the rural populations served at the beginning and completion of the project. Lessons learned from this project could be duplicated in other communities.
Sustaining an organization can often be a challenge - particularly a volunteer-based community group in small town/rural Canada. The Safe Communities Foundation has identified sustainability to be the biggest challenge facing many of their coalitions across the country. Financial and human resources are critical to a coalition remaining vibrant and healthy. In order to address these needs, the Safe Communities Foundation has created an opportunity for change by designing the "Building Community Capacity" project.

This two year project is focusing on four key areas: (a) volunteer recruitment and retention, (b) fundraising, (c) training and (d) developing a network of organizations to share resources. Focus groups have been held with Safe Communities and outside stakeholders across the country to ensure the final product will meet the needs of the end users. Material under development includes templates, success stories gleaned from the focus groups, a list of web-based and hard copy resources, best practices from like-minded organizations, roles and responsibilities of volunteer Boards and a list of potential mentors. Although this project specifically addresses Safe Communities, the underlying principles relate well to any organization. This session will explore ways to make the participants' organizations stronger by using some of the principles developed through the "Building Community Capacity" project.
Rural and remote areas of Canada provide unique opportunities and challenges for Registered Nurses in advanced practice. In the current national nursing shortage, recruiting and retaining nurses who are well prepared to work in these settings is paramount. While the roles and practices of these nurses are currently being examined, little is known about how best to support their practice in rural and remote settings.

This presentation will review the literature on the concepts of support, mentorship, preceptorship and enhanced orientations with particular attention to concepts and strategies that relate to rural and remote areas. Themes in the literature will be compared to some preliminary narrative data arising from The Nature of Nursing Practice in Rural and Remote Canada Study. The presentation will conclude with an indication of issues that require further exploration in order to identify how nurses can best be supported to work in advanced practice roles in rural and remote settings.
Health human resource planning has become an integral part of comprehensive health planning. The supply of health professionals is of particular concern in Northwestern Ontario—a vast, sparsely populated area. The Northwestern Ontario District Health Council in collaboration with health councils throughout Ontario, recently conducted a regional study on the health human resources situation. The development of an inventory of health professionals, identification of recruitment and retention strategies, relevant education and training issues, and factors which influence the future demand for health professionals were examined.

The multi-faceted study included a provincial labour market survey, focus groups, key informant interviews and a guidance counselor survey. As the physician situation has been extensively examined in previous studies, this professional group was not included in the study.

An overview of the health human resource literature and the Northwestern Ontario context will be given in this presentation. A summary of the research methodology and findings will be shared and suggestions for further research discussed.

Kate Tilleczek, Raymond Pong, Suzanne Caty, Centre for Rural and Northern Health Research, Laurentian University; Isabelle Michel, Public Health Unit, Sudbury, Ontario

The objective of this needs assessment was to determine the perceived continuing education needs of Nurse Practitioners in primary care settings in rural, northern, and remote communities in Ontario. This objective was met through three means: (1) a survey of NPs in northern and rural southern Ontario, (2) a re-analysis of continuing education data from a tracking study of graduates of the Primary Health Care NP Education Program and (3) a sampling of key informant's views on continuing education needs.

Results suggest that NPs saw continuing education as important to maintain competency. Accessing continuing education was difficult due to barriers such as travel, cost, work, and family obligations. Most respondents stated they had access to computers and the Internet. They perceived the use of distance education as a way to improve access.

The three most frequently reported health problems were: (1) diabetes and related sequelae/complications (2) cardiovascular diseases and (3) psycho-social problems. These health problems were reflected in the client-focused and profession-focused learning needs which reflect a broad nature of NP practice, namely health promotion, disease prevention, illness treatment, and health maintenance.

Keeping current and receiving updates in specific areas were viewed as necessary. Of particular interest was the high percentage of respondents who identified the need for more information in the areas of assessment, diagnosis and differential diagnosis, drug prescriptions and interactions, and laboratory testing and interpretation.

Respondents preferred face-to-face continuing education. Those living in remote areas recognized the benefits of information and communications technologies. The interest in face-to-face delivery appears to be constrained by barriers of distance, cost, personal obligations, and work obligations.

Delivering continuing education activities to NPs working in rural and remote areas is complex and multi-faceted. On the basis of the results of this needs assessment, recommendations were generated and offered for consideration by COUPN.
The Centre of Excellence for Children and Adolescents with Special Needs (COECASN) was established in October 2000 by a consortium of researchers in collaboration with Health Canada to address the special needs of youth in northern and rural Canada. This 90-minute presentation shall be chaired by Dr. Julia O’Sullivan, (National Director), and will highlight research arising within each of its five task forces and the national office (6 focused presentations of 15 minutes each): 1) Drs. Mary Courage and Patricia Canning, (Co-Directors of the Nutrition, Health and Development Task Force, Memorial University) shall report on the relative economic capacities of school communities served versus not served by School Food Programs in Newfoundland and Labrador; 2) Drs. Mary Lyon and Kim Kienapple, (Co-Directors of the Early Intervention Task Force, Mount St. Vincent University) shall report on the state of special needs services in rural Nova Scotia; 3) Shirley Tagalik and Margaret Joyce, (Co-Directors of the Mental Health Task Force, Government of Nunavut) shall provide conceptualizations of mental wellness from an Inuit perspective; 4) Dr. Alan Bowd, (Director of the Learning and Communication Task Force, Lakehead University) shall examine research relating to the health and educational consequences of middle ear disease (otitis media) for Inuit, Metis, and First Nations children of northern Canada; 5) Margo Greenwood, (Director of the Substance Abuse Task Force, University of Northern British Columbia) shall review challenges pertaining to special needs associated with substance abuse that are encountered by service providers and youth in northern communities; 6) Dr. Vanessa Catalan, (Research Director, national office, Lakehead University) shall discuss methodological challenges in the design of a prospective study of the impact of breastfeeding duration on the dual epidemics of otitis media and diabetes in aboriginal populations of northern Ontario.
Kangaroo Care (KC) is a method of treating newborn or young infants that involves putting the infant on the mother's chest skin-to-skin (the baby is placed between the mother's breasts dressed only in a diaper) and wrapping the mother and infant together so that the mother literally wears the infant -- hence the name "Kangaroo". The method originated in Columbia as a means of treating premature infants when incubators were not available. Surprisingly the infants survived as well or better than if they were in incubators. In the past thirty years the benefits of KC for both premature and full term infants have been extensively researched. Compared to newborns who are separated from their mothers, KC cared for infants have more stable temperatures, heart rates, respiratory rates, and gastrointestinal adaptation. The infants' sleep is more restful, they have fewer serious infections, grow faster, breast feed longer, and go home from hospital sooner (thereby saving hospitals and health systems money). In some countries, like Sweden, KC is used routinely in place of incubators even though incubators are available. Although mothers who have recently given birth typically are able to maintain their newborns' temperature more evenly than others, many of the benefits of KC to infants also can be provided by skin-to-skin contact with other persons (men or women). The implications of KC as a treatment or method of caring for young infants in rural Canada are many. Where there are no incubators, where electricity to run incubators is unreliable, or when transporting infants long distances in ground or air ambulances, KC may be life saving. The presentation will present the benefits of KC and demonstrate the simplicity of its use.
In the mid 1980s Inuit women on the east coast of Hudson Bay organized to protest the evacuation of all pregnant women from their remote northern communities to southern hospitals for childbirth. The Innulitsivik Health Centre worked with the community to establish a programme of midwifery care and education through birth centres in Puvunituk and Inukjuak. The midwifery service is recognized as a model for the education of aboriginal midwives and for the provision of maternity care in remote communities. This paper reviews the research about birth and midwifery in Inuit communities and about the Innulitsivik Maternity. It uses slides and stories from Inukjuak and Puvirnituq to set the scene. It looks at the community development aspects of midwifery in the North and challenges assumptions about the policy of evacuation of pregnant women from remote communities to southern hospitals in order to give birth. It explores the barriers to, and the rewards and challenges of, providing midwifery care in remote communities. It highlights the accomplishments of the Innulitsivik midwifery service from the perspectives of both an Inuit midwife and a "southern" midwife who have worked in the service over the past five years.
Introduction: As urban centers prepare for the aging boom in 2020, the future is here in rural and remote regions of Canada. Yet there is a dramatic shortage of health professionals knowledgeable in aging and health and significant obstacles to their retention and recruitment. This telehealth enhanced partnership project provides a case study of developing community capacity in aging and health in rural and remote regions.

Description: First an assessment of the learning needs of health professionals, service groups and lay people were determined. A series of consultation team visits were undertaken combining clinical consultation and community wide educational events. Teams from the community made educational visits to our urban setting. Telehealth mediated interactions were introduced into the process and became the primary means for sustaining development.

Results: During the intervention knowledge of aging increased across the community, mentoring relationships developed, a transdisciplinary assessment protocol was constructed, dementia service planning was enhanced, a caregiver support group started up and raised funds, a distant wound consultation process was initiated, digital assistant information resources were adopted by physicians, and a monthly videoconferenced consultation round was initiated.

Consultation: Gradually "wrapping" information and e-health resources around entire communities increases skills and knowledge and may provide a model for enhancing health care for seniors in rural and remote Canada.
To respond to an emerging and escalating problem of substance abuse, particularly prescription (opiate) drug abuse in our community, a partnership of community agencies and private citizens has been formed. Local and national media have focused attention on opiate abuse, particularly in St. Stephen, New Brunswick and Calais, Maine. Both communities are rural, geographically isolated and economically depressed. There is ample evidence of a growing drug culture throughout our communities and it affects everybody either directly or indirectly. Opiates, once considered the "end of the line" for drug addicts, are becoming one of the first drugs abused. Addiction of these synthetic heroin drugs has an extremely rapid onset, especially with youth, and the health and social ramifications are devastating to individuals and to communities. The initial work of the partnership is aimed at increasing community awareness and public education regarding the dangers of prescription opiates. The group is also working to promote provincial involvement to address the problem, such as the implementation of a controlled drug monitoring system. Other strategies involve support for physicians who are on the firing line for prescribing opiates, and support for law enforcement officials who are grappling with the most effective ways to deal with the crime associated with the illegal marketing of legal drugs. Our partnership is working in close collaboration with a community group across the US border in Calais who are surging forward with community efforts to deal with a problem that was recognized much earlier. It is the intention of both groups to capitalize on the best efforts on both sides of the border to ensure that prevention, treatment, enforcement and health promotion initiatives are synergistic. Community mobilization is key to effectively dealing with the prescription (opiate) abuse problem.
Promoting Rural Mental Health Through Video Conferencing: Tapping Into Natural Community Networks.

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Research Question: Can professionals of wide-ranging disciplines be encouraged, through the use of telehealth technology, to collaborate in developing local solutions to community mental health needs?

Context: Mental health services are often unavailable in rural communities. This means that mental health interventions are sometimes provided on an ad-hoc basis by existing health care providers and community members who would likely benefit from training or support.

Objectives: This presentation identifies ways of tapping into existing collaborative health initiatives and community networks in order to enhance community mental health.


Participants: Faculty from three disciplines (psychology, family medicine and psychiatry) and a wide range of professionals and community leaders in a remote setting (physicians, nurses, nurse practitioners, police, social workers, physiotherapists, school counsellors, youth leaders, clergy).

Interventions: Development and implementation of interactive educational program that includes a live video conferencing forum for presentations and discussion, an internet web page, and both professional and self-help mental health resources.

Outcome Measures: Pre- and post-program needs survey, semi structured interviews, case-conference satisfaction ratings and project field notes.

Design: A Grounded Theory approach was used to analyze the data. Due to large staff turnover, repeated measures statistical analyses of the survey data were not possible.

Results: Participants reported expanded knowledge and heightened sensitivity to mental health issues, increased cross-disciplinary connections, and greater cohesion with other professionals. Those most involved in the video conferences also seemed most active in building community social support networks. These more active participants attributed their community mental health networking success at least in part to this demonstration project.

Conclusion: The results suggest that telehealth technology can be used to enhance community networking, as well as collaborative, interdisciplinary functioning, in a rural setting.
The "Injuries are No Accident" pilot project was developed to respond to the high incidences of injuries occurring in the NOR-MAN Regional Health Authority (RHA) service area. For the period of 1997/98 the Manitoba provincial data indicated that the NOR-MAN RHA was experiencing double the injuries as compared to the other Regional Health Authority regions. To address the issue of unintentional injuries a partnership between the NOR-MAN RHA (Community Nurse Resource Centre and Health Promotion & Education Services), Healthy Flin Flon, Healthy The Pas & Area Roundtable and Health Canada was established. This partnership started to collect and analyze the required data needed to develop a draft community/regional injury prevention model for the NOR-MAN service area.

Rationale: To make evidence based decisions on injury prevention, an injury surveillance system that is built upon and improves on existing data collection is required at the local/regional level. Quality injury surveillance is essential to recognize the injury problems, to measure the burden of injury, to develop injury specific prevention programs and to evaluate injury prevention programs within the community/region.

Methods: We reviewed hospital charts/records of injury-related presentations at the Emergency Departments of both the Flin Flon General Hospital and The Pas Health Complex for the period of April 1, 1999 to March 31, 2002.

Results: Total injury-related presentations for unintentional injuries were 9,401. The incidence of injuries in males was over double that of females.

Conclusion: Surveillance of injuries/collection of data at the local level is valuable to identify and then address the injury problems within a community/region. Programming decisions that can be based on evidence and tracked for changes.
In British Columbia, the health care services are currently undergoing massive restructuring, leading to uncertainty and complex changes. These changes are having a significant impact on nursing leadership. The impact has led to critical challenges to nurse leaders in small rural hospitals. Studies on hospitals and workplace environment have identified effective nursing leadership as a significant element in facilitating a supportive workplace environment. Strong and effective nursing leadership is recognized as significant and powerful in fostering a supportive environment for nursing practice within a health care system that is presently undergoing complex and continuous change; however, little is known about leadership practice in small rural hospitals.

The purpose of this paper presentation is to discuss the preliminary findings from a grounded theory study that examined the nurses' perspectives and experiences of leadership in small rural hospitals. The study is currently in the final stage of data analysis and theory development. The data sources include interviewing nurse leaders from small rural hospitals in one health service area in the Interior Health Authority in British Columbia. Data is also collected through field observation and field notes as well as review of relevant documents. Interviews were tape-recorded, transcribed, and analyzed using a well-articulated inductive/deductive technique of grounded theory.

Preliminary findings identify some significant issues for nurse leaders in small rural hospitals. Some leaders have described the impact of change as a crisis in nursing leadership. The findings show how the process of leadership is influenced by power and authority relationships of administrators, physicians, and nurse managers in small rural hospitals. The study has relevance for the practice of nursing and leadership in small rural hospitals as nursing leadership is linked to supportive workplace environment and nurses' satisfaction with their jobs.
There is growing acknowledgment that health issues in rural and northern communities are complex, being deeply rooted in the social determinants of health, and overlaid with multifaceted cultural and mental health issues. The traditional medical model of health care has proved largely ineffective in improving the health status of these communities. Outpost nurses are expected to function as both primary care providers and in a community health nursing role, to provide comprehensive primary health care in underserved communities. Using clinical narratives, this interpretive study explored the clinical wisdom embedded in the practice of nine experienced outpost nurses. Data analysis was conducted in accordance with Benner's model of interpretive phenomenology, a research methodology that effectively preserved the context of outpost nursing practice. Four main themes emerged from the data and were interpreted within the context of practice: a) primary care competencies are fundamental to outpost nursing practice, b) nurses evolve into the outpost nursing role by learning community health competencies and adapting to context-specific practice issues, c) experienced outpost nurses build and maintain responsive relationships with communities, and d) experienced outpost nurses become comfortable with the autonomy and responsibility of practice. Thematic analysis provides important insight into how experienced outpost nurses have adapted to the challenges of living and working in rural and remote communities. These challenges are shared by other health providers, such as rural physicians, and include living in isolation, working without resources that are taken for granted in urban settings, and practice that is often removed from the support of peers and colleagues. A better understanding of the outpost nursing role may clarify how rural health practitioners might better contribute to improving the health status of rural and northern residents, and help these communities become healthy communities.
The trend in community health assessments is to identify the strengths of a community, rather than focusing on its problems and deficits. The Community Health Nurse Educator is challenged to create learning experiences for students that are practice-based and increase their understanding of the community's strengths. Service learning is a form of capacity building for community health that has recently gained in popularity.

Service learning projects can help students develop a myriad of skills, such as critical thinking, research skills, group collaboration skills, community relationships, and leadership skills. The reciprocal relationship between students and community agencies in which both parties engage in service and learning, is an exciting opportunity for students to learn about community services and for community agencies to benefit from the student's "work" of learning.

Throughout the learning experience the faculty person serves as a resource person and consultant to the students and the community agency. The learning activities meet mutually identified and meaningful needs of the community and provide planned and significant learning experiences for the students. The learning experience includes clearly defined objectives for the students and identified outcomes for the agency. An example of a needs assessment for hepatitis A immunization for men who have sex with men will be used to illustrate a service learning experience that occurred in the Spring of 2002 with 4th year baccalaureate nursing students in their Community Health practicum.
In this paper it is argued that there are good reasons for carefully distinguishing ideas of health and quality of life, and for never using the Short Form 36 (SF-36) and Sickness Impact Profile (SIP) scores as measures of the overall quality of people's lives. It is suggested that we might all be better off if the term 'health-related quality of life' were simply abandoned. However, since this is unlikely to happen, it is strongly recommended that researchers be much more careful with their usage of the phrase and their interpretation of purported measures of whatever the phrase is supposed to designate.
Building a Framework and Indicators to Assess Health and Quality of Life of Rural Communities.

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In a SSHRC funded, three year project, researchers at Brandon University Rural Development Institute are partnering with rural Community Development Corporations, Regional Health Authorities, Community Futures Partners of Manitoba, Health Canada, the Rural Secretariat, and Statistics Canada, to build a framework and indicators to assess the health of rural populations and rural communities.

Rural residents were asked to describe healthy rural communities, identify meaningful indicators of community well being and suggest methods for measurement. Development of the framework and indicators, which is an ongoing iterative process, is challenged by the need to ensure that the framework and indicators are valid and reliable from a research perspective and credible as well as useful to the members of the rural communities that will employ them. Input derived from literature review, initial focus groups and later workshops with rural residents as well as validation focus groups is being incorporated into the development of a framework and indicators for future use by rural residents in measurement of their well being. This process will create a workbook to be tested and further adapted for use by rural residents in assessing the health, well-being and quality of life of their rural communities.

The purpose of this presentation is to discuss the rural resident focus groups and workshop findings, as well as to describe the current status of indicator and framework development.
There are significant barriers to achieving continuity in the care provided to cancer patients in the remote First Nations of northwestern Ontario, as there are throughout Canada's provincial and territorial north. Focusing on the structural elements set out in Donabedian's framework for assessing quality care, the present paper reports selected findings from a research report that was prepared for Cancer Care Ontario (January 2002). The findings are based on in-depth interviews done with those responsible for providing oncology care at the community level: nurses, doctors, community health representatives and band health directors. Data was collected in six communities across the vast region, ranging from small, isolated fly-in settlements in the far north, to larger, road accessible places near to regional service centres. The project was initiated as a result of concerns raised both within communities and by Aboriginal organizations mandated to represent their health interests.

The core elements of a health system's structure create the amenities of care that influence variable degrees of access and variable degrees in the quality of care received. In this care the structure is dictated by large distances and small numbers of people. It is a system that is stretched, literally and figuratively, to meet people's needs.

The paper critically examines the situation with respect to each of the core structural elements that contribute to health care: material resources, health human resources, and organizational aspects. Clearly the most significant factors affecting continuity in oncology care derive from the shortage of professional care providers. But the range of services and access to them, as well as communications issues dictate continuity in marked ways. The paper also outlines the policy recommendations made to regional, provincial and federal stakeholders with respect to the major issues identified.
Context: Surveys indicate 50 to 80% of cancer patients would choose to die at home if possible, although far fewer actually do. In Nova Scotia (NS), cancer deaths occurring out-of-hospital have increased from 19.8% in 1992 to 30.2% in 1997. The impact of rural residency on this trend has not been studied.

Objective: To determine if dying in a rural or urban locale is associated with experiencing an out-of-hospital cancer death.

Design: Secondary analysis of linked population-based data files including the NS Cancer Registry, vital statistics, the Queen Elizabeth II Health Sciences Center Oncology Patient Information System, the NS Hospital Admissions/Separation database, the Medical Services Insurance Physician Services database, the Postal Code Conversion file (PCCF) and 1996 Statistics Canada census data.


Measures: Location of death, dichotomized as a hospital death or an out-of-hospital death and urban/rural residency, using an enumeration area urban/rural indicator created from postal code information. Covariates included sex, age, cancer type, death year, income quintile, survival time, if seen in long-term care, palliative radiation receipt and total inpatient hospital days during the end-of-life.

Results: Of the 13652 total cancer deaths, 6171 occurred in rural NS, of which 1471 (23.8%) died out-of-hospital. Out-of-hospital deaths in rural NS increased from 16.2% in 1992 to just over 27% in 1997. Multivariate logistic regression results indicate that compared to urban cancer patients, the odds of an out-of-hospital death in rural NS was lower (adjusted odds ratio [OR]=0.86 95%confidence interval [CI]=0.78-0.94). Conclusions: There has been an increasing trend during the 1990s for cancer patients to die out-of-hospital. Compared to their urban counterparts patients in rural areas were less likely to do so. Those with cancer living in the rural setting and who wish to die at home may face unique challenges.
Since the late 1980s, every Canadian province has undertaken major mental health reforms. These reforms include development of a range of community-based services and downsizing of the acute care sector while increasing consumer participation in all aspects of care. The initiatives that have been implemented are based on efficacious models of community-based care. However, these models of care are necessarily adapted to local or regional environments rather than being a replication of original models. Rural and remote regions in particular may need to make substantial alterations in programs since model programs have largely been developed in urban environments. The purpose of this research is to describe adaptations made to service models to suit rural environments in ten rural health regions in Manitoba, and to examine the effects of adapted mental health service models on individuals who are most affected by changes in service delivery, people with severe and persistent mental illness (SPMI).

This presentation will describe the availability of key elements of a reformed mental health system of care as identified in the Best Practices in Mental Health Reform (1997). Variations in structure and functioning of these services and adaptations made to suit the rural environment will be considered. Implications for consumers, health planners and policy-makers will also be discussed.
People who live in rural and remote settings expect to travel longer distances than those in larger centres to obtain highly specialized tertiary- and quaternary-level hospital services. What tends to be overlooked is the frequency with which patients from smaller centres travel further than appears to be necessary in order to obtain more general, secondary-levels of hospital care. This paper presents data from a study of hospital utilization patterns in the province of Nova Scotia that determine how often patients are traveling outside of their district of residence to obtain services that are already available within their district, or else further than the nearest centre offering an equivalent level of care. The study is based on analysis of CIHI Discharge Abstract Database for all Nova Scotia acute care hospitals from 1991/92 to 2000/01. Profiles of long distance consumers of specific general hospital services will also be presented. The paper concludes by discussing the implications of these utilization patterns for acute care hospitals in smaller settings and for consumers of general acute care services who live in smaller rural and remote centres.
Volunteerism has been identified as an indicator and an important resource in defining the health and well-being of rural communities (Determinants of Health of Rural Communities, 2002). Other studies indicate substantially more volunteering in rural than urban regions with the largest contributions of time from older adults. This is noteworthy given the recent national trend of overall declines in volunteerism (National Survey of Giving and Volunteering, 2002).

This paper examines the dynamics of volunteerism and factors related to enhancing volunteer efforts among older adults in rural communities. Findings are reported from a study of 100 volunteers (average age of 67) at nonprofit service organizations in southwestern Manitoba. As expected, older adults volunteered the most time whereas younger seniors were involved with a greater number of service organizations.

Respondents’ motivations, benefits and activities of volunteering varied by type or place of volunteering. However, there were no differences on sociodemographic characteristics (age, sex, marital status, education, occupation, time retired, length of residence in community) between volunteers at seniors’ centers and those at non-seniors organizations. Seniors’ centers’ volunteers contributed more annual hours of volunteering (392.8 versus 194.9) and those at non-seniors organizations volunteered for more different organizations. Volunteers at non-seniors organizations were more concerned with socializing and value ideological aspects of volunteering (companionship, belief in a cause, feeling connected) those at seniors centers were motivated by meaningful activities, broadening their knowledge, community affairs, meeting people, getting out of the house, motivating others and keeping healthy. In addition, volunteers at seniors’ centers were more concerned with on-going training and education as well as the costs and potential compensations for their volunteerism. The results offer directions to evaluate volunteerism and to increase the productivity and well-being of older volunteers in rural communities.
Voluntarism is an important resource in rural communities, essential to the viability of many nonprofit organizations. This paper examined the input and costs associated with volunteering at the Manitoba Agricultural Museum. The objective was to estimate the monetary value and community involvement in volunteering (time, travel and professional services) to be used for planning, development and potential funding initiatives.

In Canada, the Manitoba Agricultural Museum is the largest collection of operating antique farm machinery with the annual Threshermen’s Reunion being the largest display of steam and gas farm equipment. The museum has a membership in excess of 600 people. These dedicated volunteers restore, maintain and collect holdings, construct and repair buildings, maintain grounds and do all else necessary to insure functioning of the museum.

In July 2001, a survey was conducted of approximately 10% of the membership 18 years and older. Two-thirds of the volunteers were men, with an average age of 52 years. Nearly two-thirds were employed and most engaged in other volunteerism apart from the museum. Although many volunteers resided in the vicinity, average one-way travel distance to the museum was 96 km with an average of 9.5 trips in the past year. Volunteers donated on average 6 days (72 hours) during the Reunion and 69.5 hours at other times throughout the year. Most volunteer activities included preparation for the Reunion, working on a museum project and work weekends.

A third of the volunteers used a professional qualification or trade on behalf of the museum for half of the hours they volunteered at the museum. More than a third worked on museum projects or artifacts off-site for more than twice as many hours. Contributions from employers for which the museum was not billed were considered. The costs of volunteering in dollar value to the museum and personal expenditures to volunteers are discussed in terms of rural volunteerism.
Quebec is experiencing a lack of doctors, particularly in remote areas. This negatively effects access to medical health care for people living in these areas. As a result the province has adopted measures to encourage immigrant doctors to practice in rural areas. Research was recently funded by the Ministère de la santé et des affaires sociales of Quebec to investigate the factors that contribute to the attraction and retention of general practitioners and to see if there are specific patterns of integration and mobility among immigrant, as well as non-immigrant physicians, in rural areas.

The objective of this presentation is to explain the rationale and approach taken in doing this study, based on the authors ten years of research about determinants of immigration outside urban centres. The concept of "overall quality of life" is crucial and will be discussed with regard to the mobility patterns of general practitioners. What is the possible effect on the practises of these doctors? What insight will the study provide for the future recruitment of doctors in rural and remote areas? The presentation will propose preliminary answers to these and other questions.
This paper grows out of the research that we have recently been conducting in rural Nova Scotia in which we are exploring the connection between disability and rural life. Our preliminary findings suggest that while the "disability experience" is shaped by rurality, it is also informed by dominant conceptions of disability that transcend rurality. The bio-medical model is the most influential paradigm for understanding and framing disability experience and we explore the consequences of this model as it is expressed in rural Nova Scotia. We begin by critically examining the ways in which disability and illness are typically conflated. Sociology follows the bio-medical understanding of disability as illness. This conceptual strategy has effectively removed disability from the agenda of sociological research. When it does appear on the agenda, Oliver (1990: x-xi) points out that "... sociology has done little except reproduce the medical approach to this issue" which reproduces the common-sense understanding of disability as "individual tragedy" and prevents any conception of disability as a social phenomenon. In contrast, we will outline a "disability studies" approach which conceives of disability as distinct from illness (it is possible to be disabled and healthy), and which treats disability as a social phenomenon generated by dominant and unexamined conceptions of health as well as by the built environment. We will then move to an exploratory analysis of the social formation of disability experience in rural Nova Scotia, restricting our analysis to an examination of the policies of Human Resources Development Canada (HRDC). For the purposes of this paper, we focus on HRDC's policy of establishing "disability coalitions" (voluntary community and government partnerships) in rural Nova Scotia. Such an examination will allow us to develop a sense of how disability experience in this region is understood and shaped. Finally, we will propose a research strategy for drawing out the connections between rural Nova Scotia's industries, such as fishing and mining, and disability. The goal of such a strategy is to uncover local knowledge of disability as it relates to these industries and as it is conceived of and treated in these communities.
An extensive literature has developed over the last ten years which evaluates video-conferencing as a tool for education and consultation with health care students and community providers in rural and remote areas. A similar literature does not exist about video-conferencing as a technology for collecting qualitative data in rural health research. This paper examines the issue of "video-focus groups" both theoretically and empirically. The published literature on collecting and analysing focus group data will be critiqued in relation the perceived implications of introducing video-conferencing into the research process. The author's personal experience in collecting data through a video-focus group will be used a case study during the discussion. The paper will conclude with identifying the possible contribution of video-technology to rural health research.
Introduction: This presentation will discuss the development of useful population health and health services indicators for Regional Health Authority (RHA) planners, and the importance of choosing appropriate geographic areas for analysis. The Manitoba Centre for Health Policy (MCHP) and Manitoba's eleven rural/northern RHAs are working as a collaborative research team to produce the RHA indicators report.

The Indicators: Approximately 60 population-based health status and health services indicators were mutually decided upon by the team. Using MCHP's anonymized administrative claims database, rates are age/sex standardized where appropriate, and reported by RHA and by sub-RHA geographical areas called Districts. Rates are also provided for two time frames: just "before" RHAs were established (1994/95-1995/96), and "recent" (1999/2000-2000/01).

The Borders: To define Districts for sub-RHA analysis, collaborative decisions were held with experts from the RHAs, MCHP, and Manitoba Health. Most RHAs were divided into 4-6 districts, though the number ranges from one to eleven. MCHP previously used different boundaries for sub-RHA analysis, but these were not all relevant for RHA planning needs. The crucial trade-off in the many sparsely populated areas involves adequate population size (for confidentiality and for stability of rates) versus geographic and cultural distinctiveness and usefulness to RHA planners. These issues, as well as methods for geographically defining districts, will be described.

The Organizing Framework: In order to make all indicators in the report more interpretable, a consistent graphical ordering of RHAs and Districts is used. Areas are ranked in ascending order of Premature Mortality Rate (PMR - death before age 75). PMR is correlated with illness burden, self-rated health, and the "need" for health care (Eyles and Birch 1993). This ordering allows an assessment of the match between need and use, in that low-need areas should have lower rates of utilization, whereas areas with high-need population should show higher utilization.
Many rural and remote communities in Canada have not had the benefit of midwifery services, even in the provinces in which midwifery has been legally recognized over the years since 1994. It is widely recognized that there is a shortage of maternity care providers in rural Canada and many communities are losing their local maternity services.

Midwives, family physicians, and nurses working in rural and remote communities experience many of the same stressors relating to insufficient time off-call, lack of easy access to continuing professional education events, and unavoidable social contact with patients. Limited access to specialists and referral centres, restricted local resources such as laboratory and ultrasound facilities, and lack of support from colleagues for providing maternity care create further challenges.

Available evidence indicates that perinatal mortality and morbidity rates in small communities with functioning maternity services are equivalent to or better than communities with advanced facilities, even in the absence of caesarean section capabilities. A number of Canadian initiatives supporting rural maternity care provision have been undertaken in the past few years and are identified.

The development of integrated models of care is an attempt to explore ways in which midwives could work as part of a team of maternity care providers which might include family physicians, hospital and community nurses in rural and remote Canadian communities. Essential foundations for the success of an integrated care model are highlighted from the available literature, and a variety of models are outlined. Barriers are identified following attempts by the author to establish integrated care models in two remote British Columbia communities.
POSTER PRESENTATIONS
Mortality and Disease Incidence Due to Less Common Causes: A Focus on Rural and Northern Ontario.

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Most reports of mortality by cause or disease incidence focus on "leading causes". Relatively little attention is paid to "less common causes" and it is very seldom that one sees information available in a form that would enable either intra-rural or rural-urban comparisons. The objective of the research reported here is to contribute to our knowledge in these latter areas.

In this empirical, exploratory investigation, age-sex standardized rates and ratios of mortality and morbidity will be computed for less common diseases using individual ICD codes. Where numbers are too small to report by individual code, clusters of codes will be employed. The resulting information will then be mapped. It is expected that the computation and mapping of these rates and ratios will be hindered because of the inherently small numbers associated with our targets of "less common causes". Consequently, nested hierarchies of time (from 1981 to 1996+) and geographical units will be employed. With respect to the latter, the initial investigation will focus on "communities" expressed as census subdivisions. The small numbers may force us to aggregate upwards through census divisions to public health units to Ontario Ministry of Health and Long-Term Care planning regions. With each aggregation level the outcomes will be less useful in terms of providing intra-rural and rural-urban comparisons.

Where appropriate, mortality/morbidity incidence measures will be correlated with selected sociodemographic and economic measures drawn from the 1996 Census of Population. At this point in time it is not intended that these comparisons be undertaken using sophisticated multivariate analytical models. Rather, the objective is to employ relatively simple correlation and cross-tabulation techniques as a means of hypotheses generation for further explorations of the datasets.
One of the critical methodological issues in rural and remote health care is defining the terms rural and remote. There is a lack of consensus regarding these designations. Based on location and other variables, health care agencies often view these terms differently. Thus, the author did a preliminary survey of community health agencies, all of which stated they delivered services to clients in rural and remote areas. This preliminary work is intended to inform a proposed larger study. Agencies were asked how they defined rural and/or remote as well as whether or not these definitions were official organizational definitions or the beliefs of agency personnel. Agencies were also asked if they considered all or part of their delivery of services to be rural and/or remote and why that was so. Agencies statements about the nature of their practice can affect funding applied for and received as well as how services are conceived and rendered.

Ten Bachelor of Science in Nursing students in community health placements carried out the survey within their respective placement agencies. Each student was assigned to a community health nursing agency located in Ontario or Manitoba. The communities where these organizations were situated were of varying sizes, ranging from a few hundred people to over 100,000 inhabitants. The larger communities had road access whereas some of the smaller ones did not. There were similarities in how the agencies conceived their definitions of rural and remote as well as differences. Only one agency had an official agency definition of rural and remote. Some of the organizations identified themselves as urban services that also worked with those in rural and/or remote areas. Others saw themselves as rural agencies. An organization in a fly-in community considered itself local whereas services delivered outside the community to areas that could only be accessed by boat or snowmobile were considered remote.
The Need to Know project is based on a knowledge transfer model that facilitates collaborative research between the Manitoba Centre for Health Policy, Manitoba Health and the 11 rural and northern Regional Health Authorities of Manitoba, with representatives from each making up the project team. The main goals of the project form the basis of this model: (i) to create and develop knowledge directly relevant to rural and northern regional health authorities, (ii) to develop both RHA-relevant capacity for collaborative research and useful models for health information infrastructure, and (iii) to disseminate and apply health-related research so as to increase the effectiveness of health services, and ultimately the health of RHA populations.

Efforts to accomplish these goals are well underway. The creation and development of knowledge involves conducting three RHA-relevant research projects (the first of which is nearing completion) and the refinement of the knowledge transfer process through the work of an Advisory Committee and an ongoing evaluation. The development of RHA-relevant capacity includes training for RHA team members and graduate students, to (a) increase their understanding of and/or their ability to conduct RHA policy-relevant research, and (b) improve their ability to access information. In order to facilitate the dissemination and application of health-related research, team members receive relevant health-related research, information on effective communication techniques, and homework assignments that provide an opportunity to engage in relevant activities. Moreover, ongoing team meetings, facilitated workshops, and other participatory activities provide opportunities for networking and increased partner interaction.

Preliminary feedback from team members has been very positive. Interacting and working collaboratively with others from across the province has been beneficial for many members. As well, the opportunity to learn, share knowledge, provide input and receive relevant training, has helped members to better understand and effectively use information.
Introduction: Frailty can briefly be summarized as an age-related vulnerability to adverse outcomes. We have previously published a Brief Frailty Scale (Lancet 1999 353:205), and demonstrated its ability to predict mortality and institutionalization. We now explore possible rural/urban differences in frailty prevalence and outcomes.

Methods: The Canadian Study of Health and Aging (CSHA) is a national, representative study of persons 65 and over, conducted in 18 centres and surrounding rural areas. Initial data were collected in 1991/2, with follow-up in 1995/6. A total of 9008 community-dwelling seniors participated, of whom 1382 rural and 7559 urban had complete data for this analysis. A 4-level Frailty Scale (0=least frail, 3=most frail) was constructed from data on function, continence, mobility and cognition.

Results: Age, sex, comorbidity and self-rated health were identical in rural/urban subjects. There was no difference in the prevalence of frailty (level 0 68% rural vs 67% urban level 1 10% vs 12% level 2 16% in both level 3 6% vs 5%). Although the hazard ratios for 5-year mortality and institutionalization were higher in rural participants, none were statistically significant.

Conclusions: We found no difference in the prevalence and outcomes of frailty between rural and urban Canadian seniors in the CSHA. Frail seniors in both settings have an increased risk for death and institutionalization. Supported by the Canadian Institutes of Health Research.
Women between the ages of 50-69 years of age are at high risk for the development of breast cancer. Because breast cancer cannot be prevented, only detected, screening assumes paramount importance. Paradoxically, despite the availability of screening clinics some women continue to underutilize the screening service. The purpose of this study was to explore factors that may explain why some women participate in breast screening whereas others do not to the same extent. A more comprehensive understanding of explanatory salient factors is helpful as a way to improve women's participation in screening. A convenience, self-selecting sample of 300 eligible women was obtained via the medium of telephone interviews based on a modified version of Lauver's Care Seeking Model questionnaire. Women were recruited from a variety of settings located in two neighboring health care regions within New Brunswick. Descriptive findings from this cross-sectional study revealed that the majority of women identified breast screening mammography as useful. Women reported a belief in mammography in relation to a self-report perception that it can lead to earlier breast cancer detection. The economic factor of income was not found to be a significant deterrent to screening attendance. Using multiple regression, a model of the combined influences of psychological and related economic factors was able to account for one-third of the variance, in the number of mammograms reported by the women. Results for this study show the complexity of interactive factors involved in decision-making processes that influence a woman to participate in breast screening and re-screening and the need for nurses and physicians to implement informed interventions designed to increase women's participation.
Adequate nutrition is seen as a major influence on the growth and development of school-aged children. In recent years, national and international governments have recognized the importance of school policies in achieving positive health outcomes for children. The Comprehensive School Health (CSH) Framework that defines a healthy environment as hygiene, safety, foods and nutrition, has been adopted by Saskatchewan Department of Education. It is not known whether school divisions in the province have responded to this framework through the development of food and nutrition policies. The purpose of this study was to examine current food and nutrition policies in Saskatchewan School Divisions, urban and rural in regards to food sold, offered, encouraged and nutrition education, in addition to the curriculum provided. A letter, requesting information on all past and present school division's food and nutrition policies was mailed to all Directors in August, 2001, with a follow-up letter in October. Of the 33/101 responses, 30 indicated that they had no formal policy, one division was currently involved in policy development, two had discussions at the board level and two expressed interest in receiving a template for the development of food and nutrition policies. Only two reporting school divisions had in place a food and nutrition policy. The results of this study indicate that school divisions have not adequately responded to the development of food and nutrition policies. Further investigation is required to determine the extent to which schools, are promoting health among students and possible issues and related concerns associated with the development and implementation of food and nutrition policies within the CSH Framework. Supported by the Isabelle Irvin Awards, College of Pharmacy and Nutrition.
Attachment theory has contributed significantly to the field of developmental psychopathology but few studies have reported on the attachment characteristics of young offenders and their influence on adolescent functioning. The Adolescent Attachment Questionnaire, Drug Use Screening Inventory - Revised and Youth Self-Report were used to assess 68 confined male young offenders. It was found that attachment relationships were inversely related to substance use, family functioning, and self-destructive behavioural problems. Young offenders from urban centres reported more substance use and more problems with peers and family members than their rural counterparts. Rural/urban differences were described in the context of environmental influences on adolescent development and psychopathology. The influence of attachment relationships on adolescent conduct problems has important treatment and policy implications for young offenders.
Microflora of Air and Peat in Peat Moss Processing Plants in Eastern Canada.

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Introduction: Peat moss is an organic matter colonized by large amounts of microorganisms. Storage of peat moss prior to its processing can result in massive fungal and bacterial growth. Workers may thus be at risk of exposure to these biological contaminants.

Objectives: our goals were to evaluate: 1) bioaerosol exposure in peat moss processing plants which used dust removing systems by measuring inhalable dust, airborne moulds (mesophilic and thermophilic), bacteria, and thermophilic actinomycetes, 2) the presence of these microorganisms and mycobacteria in peat moss.

Methods: 12 processing plants in Eastern Canada were visited in the summers of 2000 and 2001. Air samples were taken throughout the day at different work sites using IOM cassettes for inhalable dust and AG1-30 samplers and Andersen six-stage impactors for microorganisms. Samples of stored and bagged peat moss were also taken and analyzed.

Results: air samples contained up to 345.3mg/m3 of inhalable dust and up to 5.58X107CFU/m3 mesophilic moulds and 1.21X105CFU/m3 bacteria. Peat moss samples yielded up to 1.28X107CFU/g (dry weight) and 1.25X105 CFU/g (dry weight) of moulds and bacteria respectively. In some peat samples, no acid fast rods were detected while, in others, about 107 CFU/g were isolated. Very few thermophilic actinomycetes and thermophilic moulds were detected. Significant positive relationship existed between log transformed airborne dust and mould values (p<0.001, r=0.75).

Conclusion: despite the use of dust removing systems, peat moss processing plants workers in Eastern Canada are exposed to very large amounts of microbially contaminated bioaerosols. Institut de recherche Robert-Sauvé en en santé et sécurité du travail (IRSST).
This interdisciplinary and inter-institutional 3-year project on snow crab occupational asthma (OA) in Newfoundland and Labrador will contribute to ongoing research related to prevalence, diagnosis, prevention, and health and socio-economic impacts of this occupational disease. The project brings together Newfoundland researchers and health professionals with some of the world experts in the area of shellfish OA. It has been developed in collaboration with the provincial Working Group on Shellfish Occupational Asthma, which was established in March 2000 by the Newfoundland government and includes representatives from industry, labour, the WHSCC and various government departments. The mandate of the Working Group is to consult with industry and its workers to ensure all measures that can be taken will be taken to minimize the adverse effects of shellfish (crab) asthma on plant workers in this province while still permitting our plants to operate and provide valuable employment in areas throughout Newfoundland and Labrador. The Working Group has undertaken a number of educational initiatives and some visual inspections of existing plants. The research on snow crab OA will provide essential information to the Working Group and its member agencies relevant to achieving their mandate. It will also enhance existing expertise relevant to researching and minimizing exposures to allergens generated in this and other types of shellfish processing within the Atlantic region. The project will also support the development of more effective OA-related diagnostic and related health services in rural communities where these are currently lacking.
Non-Responders And Responders to Endotoxin Show Different Non-Pulmonary Effects.

J. Dosman, S. P. Kirychuk, A. Senthilselvan, Y. Fukushima, P. Pahwa 
Institute of Agricultural Rural and Environmental Health (IAREH), Centre for Agricultural Medicine, University of Saskatchewan, Saskatoon, Saskatchewan; Y. Cormier Centre de pneumologie do l'Hopital Laval, Sainte-Foy, Quebec

Responsiveness of individuals to baseline, low and high endotoxin levels was analyzed based on recent information that genetic pleomorphism may result in varying responsiveness to endotoxin. Twenty male subjects (age 23.9±4.6 yrs) were analyzed based on baseline endotoxin exposure (normal lab setting), low endotoxin exposure (5 hour exposure in a conaola oil treated swine barn room) and high endotoxin exposure (5 hour exposure in an untreated swine barn room). Subjects were divided based on being a "Responder" to high endotoxin if reduction in FEV₁ was greater than 10% (9 subjects, 12.9% reduction; median 3565.0 EU/m³), and a "Non-responder" if reduction in FEV₁ was less than 10% (11 subjects, 6.3% reduction; p<0.001; 2996.0 EU/m³). At "low" level exposure Responder reduction in FEV₁ (3.7%; endotoxin 477.1 EU/m³) and Non-responder reduction in FEV₁ (1.3%; 359.3 EU/m³) were also significantly different (p=0.025). Low level exposure showed PC20 values (Respondeers 201.9 mg/ml and Non-responders 322.3 mg/ml) were not significantly different but serum WCB (7.1 c/ul vs.5.4 c/ul; p=0.04), eusinophils (0.20 c/ul vs. 0.10 c/ul; p=0.023), and lumpocytes (2.5 c/ul vs. 1/8 c/ul; p=0.043) were all significantly greater in Responders vs. Non-responders. Nasal lavage cell counts were significantly greater in Responders than in Non-responders (45571 c/ul vs. 13,665; p=0.018) at high endotoxin exposure. Repeated measures evaluation showed significantly greater trend for lower value for PC20, and higher values for WBC, nasal IL6, nasal IL8 and total nasal lavage cells in Responders vs. Non-Responders. These findings suggest that Responders and Non-responders to endotoxin as defined at high level exposures exhibit different systemic characteristics that are present at both low and high endotoxin exposures. These characteristics cold represent a fundamental difference in the manner in which Responders and Non-responders react to exposure environments.
In March 1999 the Federal/Provincial/Territorial Advisory Committee on Health Human Resources Working Group on Nursing and Unregulated Workers sponsored a study to describe the nature of the extended/expanded role (i.e., assessment, diagnosis, and treatment of episodic, acute and chronic illness, and minor injury). The purpose of the project was to identify facilitators of and barriers to the effective delivery of primary care services by registered nurses in extended/expanded roles. A second purpose was to recommend policy options that would facilitate more effective utilization of registered nurses working in these roles. The project used a research design, which combined data investigation and methodological triangulation. The extended/expanded role of registered nurses is most often associated with remote areas of Canada where there are limited numbers of health professionals to service the population. There are, however, registered nurses practicing in the extended/expanded role in non-remote areas of Canada. With health care reform, the possibilities offered by greater use of the extended/expanded nursing role is a matter of interest to all levels of government. This presentation will outline the research activities undertaken by the project team, key study findings, and policy recommendations supported by the study findings.
Maintaining and sustaining rural maternity practice is under discussion due to several factors determined by physicians, which include ability to do caesarean section, transfer time to tertiary centres, and on call rotations. There is some data to suggest that women and infants can safely be cared for in small rural hospitals close to home, and that when they do have to travel for care, perinatal morbidity rates may rise. Key individuals in the decision to maintain a rural maternity practice are Registered Nurses who provide intrapartum care.

Canadian data could not be found that evaluated the perceptions, experiences, and opinions of rural RNs who provide maternity nursing care.

A pilot study in a rural maternity unit was conducted to examine those factors which influence sustainability of a low risk intrapartum unit. Using the Critical Success Factors framework (Ontario Women's Health Council, 2000) and the Model for the Evaluation of Rural Sustainability (Troughton, 1999) data demonstrates that in the opinion of nurses, administrators, and physicians key components are vital to promote low risk maternity care. Registered Nurses identified that when the unit was threatened with closure, community members were key in promoting the unit, have provided financial assistance through volunteer fundraising, and lobbied key political people to affect the decisions (Troughton, 1999). Some of the Critical Success Factors demonstrated were the ability of the hospital to fund one-to-one care in labour as a priority, a culture of birth as physiological, and a strong commitment to evidence based practice.

The pilot data has allowed the researchers to evaluate a survey tool and guiding questions for interviews and focus groups that will be used in six other rural hospitals that provide intrapartum sites in rural Ontario. The data has also reinforced the complexity of the issues involved in maintaining and sustaining rural maternity practice.
A mail survey was used to determine if informal care behaviours were affected after calls to Direct Health / TéléSanté. The teletriage pilot project (July 1999 to March 2001) was staffed by registered nurses and was available to Northern Ontario residents, 24 hours/day, 7 days/week. Callers described their symptoms to a teletriage nurse who used clinical guidelines and nursing experience to arrive at a recommendation. The Centre for Rural and Northern Health Research mailed questionnaires to ~6000 callers and received replies from 44% of these callers.

The majority of respondents reported that their call(s) to the teletriage service had not changed the kind of informal care (71%) or the amount of informal care (77%) that they gave to themselves or to others (e.g., family members). Approximately 23-28% of respondents indicated that the kind or amount of informal care had increased after their call(s). About 50% of the respondents indicated that their confidence in providing care had increased, while another 50% reported that their level of confidence was unaffected. Informal care behaviours reported by respondents included treatment of colds, minor scrapes and cuts, minor bruises and sprains, minor rashes as well as administering or taking over-the-counter drugs and herbal remedies. Exercise and diet/nutrition were also listed by respondents. Patient’s health status was reported to be excellent (38%) or very good (32%). About one-quarter of survey respondents indicated that kind and amount of informal care had increased after their call(s) to the teletriage service, while about three-quarters reported no change. About half of the respondents reported that their confidence in their ability to provide informal care to themselves or to other people had increased. Less than 1% of respondents indicated that the kind, amount or confidence in providing informal care had decreased.
A mail survey was used to determine the characteristics of callers to the Direct Health / TéléSanté pilot project (July 1, 1999 to March 31, 2001). This teletriage service was staffed by registered nurses and was available to Northern Ontario residents, 24 hours/day, 7 days/week. Callers described their symptoms to a trained nurse who used clinical guidelines and nursing experience to arrive at a recommendation.

The Centre for Rural and Northern Health Research mailed questionnaires to 6000 callers and received replies from 44% of these callers. Survey results show that most calls were made from 8 a.m. to midnight, with a peak at 4-8 p.m. About 92% of the calls were for advice on symptoms and the remainder were for information only.

Overall, 89% of callers were female. Most callers were 17-34 years of age (50%) or 35-49 years of age (33%). Only 5% of callers were >64 years old. Approximately 44% of callers had called for themselves. The 66% of the callers who had called on behalf of another person typically called for their child, aged 16 years or less. About 86% of callers spoke English at home (12% spoke French) and 97% spoke English during the call (3% spoke French). About 31% of the callers had a Grade 9-12 education while another 24% had completed community college, CEGEP or nursing school. Seventy-eight percent of callers were married/living common-law/living with a partner. Approximately 47% of callers had a total household income of $20,000 - $59,999 per year. Fifty-four percent of callers lived in cities and 28% lived in towns in Northern Ontario. Callers tended to be predominately English-speaking, female (17-49 years old) living in cities or towns, and this differs from the population of Northern Ontario.
This poster illustrates the research of two midwifery teachers who have worked in Nunavik, Quebec. It uses photographs of the land, the community, the people and quotes from Inuit midwives to highlight the findings of this qualitative research project. The goal of the project was to explore what factors are important in designing and implementing the education of midwives in remote communities, but the findings are relevant to all health care workers. The researchers conducted interviews with Inuit midwifery students and midwives and with Quallanq ("foreign") midwives from southern Canada and Europe who have worked in the Hudson Bay coastal villages served by the Innulitsivik Health Centre. The project looks at issues of how to make education culturally appropriate and accessible in remote communities. It also explores the rewards and challenges of working across cultures, both for members of remote communities and midwives from the south.
Eastern Charlotte County, New Brunswick is a very rural and somewhat geographically isolated community. It has a population of approximately 8000 with 16.2% being over the age of 65, compared with 12.2% for the province and 11.6% for Canada. Complicating the geography is an absence of public transportation and an economy that has necessitated that youth move elsewhere to seek employment opportunities. A recent survey indicates that social isolation is a problem for seniors in this community. It has been suspected that mental health problems (Smith & Buckwalte, 1996) have arisen amongst the vulnerable population of the elderly because of social isolation. Compounding this problem is a lack of integration and communication between health service providers and between those who have informal but frequent contact with older persons. A group of health professionals and citizens in Eastern Charlotte County were particularly concerned about isolation and the potential for mental health issues. Working with Mount Allison University with funding from Health Canada, a community support network called Caring Community Contacts has been formed. Based on a philosophy of being good neighbors, volunteers who have contact with seniors are trained to identify indications of need before a serious issue arises and refer the senior to an appropriate source of assistance. In addition, the group worked with the senior population and their families to enhance their knowledge and understanding of health issues and to increase awareness of existing resources and supports. A senior's health fair was held and a resource directory developed and widely circulated. Initial response to the program is positive and a Community Guidebook has been developed to assist other communities wishing to implement a similar program. Caring Community Contacts is a cooperative community based effort intended at maintaining the dignity and independence of seniors in our community.
Mental health is a significant aspect of overall health. The mental health of rural seniors has received little attention and few resources. Seniors in general may be likely to experience “situational” depression as a result of losses and changes in their lives, including death of spouse and/or friends, loss of autonomy, and physical illness or disability. In rural areas, there are barriers that prevent seniors from identifying symptoms related to depression and seeking help. These barriers include stereotypes about older people, negative images about mental illness, fear of social repercussions and limitations in accessing mental health services in rural areas. In a society that stigmatizes both old age and mental illness, it is difficult for seniors to discuss and seek help for mental health problems.

The Atlantic Health Promotion Research Centre at Dalhousie University, in collaboration with eleven partner organizations including government departments and senior’s and mental health organizations in Atlantic Canada, received funding for a one-year project from the Rural and Remote Health Innovations initiative, Health Canada. The project used participatory approaches in four community pilot sites to gather qualitative data from seniors and people in their informal support systems about signs and symptoms of depression, and barriers to seeking help for depression in rural communities. The goal of the project was to design an evidence-based strategy for developing community-based social marketing messages and formats in communities to address problems of depression among rural seniors in Atlantic Canada. In conjunction with social marketing messages, community strategies for promoting behaviour change related to depression were also developed.

This poster presentation will highlight the findings from the qualitative research, the social marketing messages and formats, and community capacity-building efforts to respond to seniors’ need for mental health services and to address the identified problems underlying depression among seniors. Project findings and messages will be of interest to other rural communities where mental health of seniors is a concern.
The Centre of Excellence for Child and Youth Centred Prairie Communities is entering year two of a five-year research agenda focused on key child and youth health, development and well-being issues. Six prairie cities are taking part in this initiative to conduct practical, action-based research which draws on both community knowledge and academic skill in discovering how communities can best support children and youth. The vision of the project is prairie communities that nurture and enhance the physical, spiritual, emotional, intellectual and social development of children and youth.

The project is working to fulfill three objectives: to improve access to existing knowledge; to create new knowledge; and to effectively use knowledge to influence policy, practice and the capacity of communities to support children and youth, with an emphasis on Aboriginal communities. As part of this research project, the goal of assessing whether a community is child and youth friendly posed initial challenges in defining the area and determining how such information could be gathered. This poster presentation describes four methods (content analysis of newspapers and periodicals, a systematic review of community literature, a community network survey and key informant interviews) of information gathering with their associated advantages and disadvantages. The initial development of a measurement tool is offered.
**Objective:** The study aims to measure the impact of a pharmacist-directed seamless care service on:

- Drug–related morbidity
- Patient medication compliance
- Patient health-related quality of life
- Patient satisfaction with the continuity of care from the inpatient to outpatient setting
- Resource utilization of emergency room visits, hospital admissions, and physician office visits
- Communication and collaboration between the hospital and community health care providers
- Community pharmacist practice

**Methods:** This randomized controlled trial was conducted with a nine-month recruitment phase (Sept 2000 to June 2001), with a six-month follow-up period. Family practice patients at the Moncton Hospital who met the inclusion criteria were recruited to participate in the study. The intervention pts received in-depth pharmaceutical care from the clinical pharmacist prior to discharge, while the control patients received the hospital’s standard of care. The ECHO model was used to evaluate the service. Economic (ER visits, readmissions, and MD office visits), clinical (drug-therapy problems and adherence/compliance), and humanistic (health-related quality of life and satisfaction) outcomes were measured.

**Results:** Recruitment targets were met with 134 patients in the intervention group (mean age=67.3 years) and 119 in the control group (mean age=61.8 years). The service had a marginal effect on economic outcomes. An average of 3.73 drug-therapy problems were found per intervention patient. Adherence/compliance improved significantly in the intervention group according to three different measures six-months post discharge. Satisfaction surveys indicated that physicians, nurses, patients and community pharmacists all saw value in the service. Health related quality life (as measured by the SF-36) showed a significant increase in the role physical domain in the intervention patients.

**Conclusions:** This pharmacist-directed seamless care service has enhanced collaboration with hospital and community health-care providers, improved medication-taking behaviour in patients, and positively influenced clinical and humanistic outcomes in patients while having a marginal impact on economic outcomes.
Dr. John Humphreys is a Professor of Rural Health Research at Monash University Bendigo in Victoria, Australia. John has worked at several universities in Australia and overseas. John has conducted some of the most comprehensive and important work on rural health and health service delivery in rural Australia over the last two decades. He has undertaken extensive fieldwork throughout rural and remote regions of Queensland, New South Wales and Victoria. John is well known for his academic research on health service provision in rural and remote areas of Australia, rural health workforce recruitment and retention, rural health policy and the evaluation of rural health programs. John has published widely on rural health issues and is the author of 5 books and over 90 journal papers and reports. He is currently Assistant Editor (Policy) for the Australian Journal of Rural Health. John has worked with the Commonwealth Department of Health where he took a lead role in developing National Rural Health Policy, the Regional Australia Summit, the review of the Rural Undergraduate Steering Committee Program and he has been a regular consultant and member of several Commonwealth Department of Health Advisory Committees.
Dr. Ross is Assistant Professor in the Department of Geography at McGill University, an Associate of the Health Analysis and Measurement Group at Statistics Canada and a regular participant in the Population Health Program of the Canadian Institute of Advanced Research. Dr. Ross received her Ph.D. from McMaster University in 1997 and joined Statistics Canada that year. There, she authored and co-authored numerous studies and assisted in research for Mustard and McCain’s *Early Years Study* for the Ontario Government. A recent recipient of a New Investigator Award from the Canadian Institutes of Health Research after an appointment to McGill University (fall 2001), Dr. Ross studies the relationships between characteristics of places (regions, cities, neighbourhoods) and health outcomes in individuals. Her research program is informed by the increasing consensus around the idea that health is not just an expression of individual characteristics but an interaction between the characteristics of the individual and the environments, both physical and social, to which one is exposed over a lifetime of daily living and working.
Dr. Crossman is Program Manager, Mental Health Services, South Shore District Health Authority, Nova Scotia Department of Health. He was formerly Chair of the Nova Scotia Child-Youth Intersectoral Working Group for Western Nova Scotia that worked to develop intersectoral policies and program development targeting children’s mental health and also served as the Chair of the Western Region Sharing Strengths Society, an initiative to create community capacity for influencing Child and Youth Health. His commitments to applying population health approaches to tracking and improving the mental health of rural Nova Scotians are also evident in his position as Chair of the Province Wide Population Mental Health Monitoring Group for the Nova Scotia Department of Health. He was formerly Executive Director of the Canadian Mental Health Association for ten years where he oversaw extensive development at policy-program levels for consumer and community participation. He has also worked as a clinician for 10 years. He completed his graduate studies in Applied Psychology at the University of Waterloo.
<table>
<thead>
<tr>
<th>Author</th>
<th>Affiliation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aikenhead, Bev</td>
<td>29CH-O</td>
<td>Empowering Rural Communities to Improve Access to Health Services - Development of Community Well Being Teams.</td>
</tr>
<tr>
<td>Allison, Derek</td>
<td>07PH-P</td>
<td>A Survey of Food and Nutrition Policies in Saskatchewan School Division.</td>
</tr>
<tr>
<td>Annis, Robert</td>
<td>45PH-O</td>
<td>Building a Framework and Indicators to Assess Health and Quality of Life of Rural Communities</td>
</tr>
<tr>
<td>Assayag, Evelyne</td>
<td>08PWE-O</td>
<td>Outbreak of Hypersensitivity Pneumonitis in a Hard Wood Transformation Plant.</td>
</tr>
<tr>
<td>Baines, Chinnama</td>
<td>41HCO-O</td>
<td>Nurses' Perspectives and Experiences of Leadership in Small Rural Hospitals: A Grounded Theory Study.</td>
</tr>
<tr>
<td>Ball, Jessica</td>
<td>23ABH-O</td>
<td>Exploring Key Determinants of Success in using a Capacity Development Model to Enhance Delivery of Culturally Appropriate Early Childhood Care and Community Wellness Promotion for Families in First Nations.</td>
</tr>
<tr>
<td>Banks, Kathryn</td>
<td>26PH-O</td>
<td>Evaluation of the PARTY Program in Northern BC.</td>
</tr>
<tr>
<td></td>
<td>43HCO-O</td>
<td>Creating Service Learning Opportunities for Student Nurses with Community Health</td>
</tr>
<tr>
<td>Baurgh, Lori</td>
<td>21CH-O</td>
<td>Assessing the Relevance of the Community Capacity Literature for Rural Health Policy-making and Programming.</td>
</tr>
<tr>
<td>Bentham, Donna</td>
<td>31HCO-O</td>
<td>Support of Advanced Practice: The Issues for Nurses in Rural and Remote Canada.</td>
</tr>
<tr>
<td>Bethune, Cheri</td>
<td>39CH-O</td>
<td>Promoting Rural Mental Health Through Video Conferencing: Tapping Into Natural Community Networks.</td>
</tr>
<tr>
<td>Bigelow, Ann</td>
<td>35PH-O</td>
<td>Inexpensive Means of Caring for Newborn, Young, or Ill Infants.</td>
</tr>
<tr>
<td>Black, Charlyn</td>
<td>03PH-P</td>
<td>The Need to Know: Collaborative Research by the Manitoba Centre for Health Policy, the Rural and Northern Health Authorities and Manitoba Health.</td>
</tr>
<tr>
<td>Bollman, Ray</td>
<td>25PH-O</td>
<td>Patterns of Mortality Among Young Canadians Living in Rural and Urban Communities.</td>
</tr>
<tr>
<td>Boone, Margaret</td>
<td>45PH-O</td>
<td>Building a Framework and Indicators to Assess Health and Quality of Life of Rural Communities.</td>
</tr>
<tr>
<td>Botting, Ingrid</td>
<td>04PH-O</td>
<td>&quot;An Historical Overview of the Impact of Social and Economic Restructuring on Women's and Children's Health in Stephenville and Main Brook, Newfoundland, 1949-2000&quot;.</td>
</tr>
<tr>
<td>Bowd, Alan</td>
<td>34SP-O</td>
<td>The Centre of Excellence for Children and Adolescents with Special Needs: Successes and Challenges in Northern and Rural Health Research.</td>
</tr>
<tr>
<td>Bowen, Sarah</td>
<td>28CH-O</td>
<td>What Works in Knowledge Translation? Evaluating Manitoba's &quot;Need to Know&quot; Project.</td>
</tr>
<tr>
<td>Bull, Arthur</td>
<td>20CH-O</td>
<td>Increasing the Capacity of Rural Communities to Use Research for Policy Change and Development.</td>
</tr>
<tr>
<td>Burge, Frederick</td>
<td>47HCO-O</td>
<td>Where A Cancer Patient Dies: The Effect of Rural Residency. The Need to Know: Collaborative Research by the Manitoba Centre for Health Policy, the Rural and Northern Health Authorities and Manitoba Health.</td>
</tr>
<tr>
<td>Burland, Elaine</td>
<td>03PH-P</td>
<td>Promoting Rural Mental Health Through Video Conferencing:</td>
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<tr>
<td>Author</td>
<td>Code</td>
<td>Title</td>
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<td>Catalan, Vanessa</td>
<td>34SP-O</td>
<td>The Centre of Excellence for Children and Adolescents with Special Needs: Successes and Challenges in Northern and Rural Health Research.</td>
</tr>
<tr>
<td>Chapman, K.</td>
<td>05PH-P</td>
<td>Enhancing Prediction of Breast Cancer Screening Participation Among Women in New Brunswick</td>
</tr>
<tr>
<td>Church, Elizabeth</td>
<td>39CH-O</td>
<td>Promoting Rural Mental Health Through Video Conferencing: Tapping Into Natural Community Networks.</td>
</tr>
<tr>
<td>Cormier, Y</td>
<td>13PWE-P</td>
<td>Non-Responders And Responders to Endotoxin Show Different Non-Pulmonary Effects.</td>
</tr>
<tr>
<td>Cromary, Helen</td>
<td>46ABH-O</td>
<td>It’s Just So Different Up Here: Continuity of Care for Cancer Patients in Northwestern Ontario First Nation Communities.</td>
</tr>
<tr>
<td>Crossman, Doug</td>
<td>S3</td>
<td>“View from the Front Line: The disconnect between population health determinants and service systems in rural Canada and the implications for policy development and research”</td>
</tr>
<tr>
<td>Crowley, Marian</td>
<td>12CR-O</td>
<td>Development of a Screening Program for a Large Hereditary Colon Cancer Family in Rural Newfoundland.</td>
</tr>
<tr>
<td>Davies, Barbara</td>
<td>15HCO-P</td>
<td>Rural Maternity Nursing in Ontario.</td>
</tr>
<tr>
<td>Desmeules, Marie</td>
<td>25PH-O</td>
<td>Patterns of Mortality Among Young Canadians Living in Rural and Urban Communities.</td>
</tr>
<tr>
<td>Donner, Lissa</td>
<td>06PH-O</td>
<td>Willing a Way: Gender and Health Planning.</td>
</tr>
<tr>
<td>Dosman, J.</td>
<td>13PWE-P</td>
<td>Non-Responders And Responders to Endotoxin Show Different Non-Pulmonary Effects.</td>
</tr>
<tr>
<td>Dowler J.M.</td>
<td>25PH-O</td>
<td>Patterns of Mortality Among Young Canadians Living in Rural and Urban Communities.</td>
</tr>
<tr>
<td>Dubois-Wing, Gwen</td>
<td>32HCO-O</td>
<td>Health Human Resources Planning: A Northern/Rural Perspective.</td>
</tr>
<tr>
<td>Duchaine, Caroline</td>
<td>08PWE-O</td>
<td>Outbreak of Hypersensitivity Pneumonitis in a Hard Wood Transformation Plant.</td>
</tr>
<tr>
<td></td>
<td>10PWE-P</td>
<td>Microflora of Air and Peat in Peat Moss Processing Plants in</td>
</tr>
</tbody>
</table>

114
Dueck, Gerald D. 09PWE-O Sensitization to Airborne Moulds in Peat Moss Factory Workers.

Dukeshire, Steven 20CH-O Increasing the Capacity of Rural Communities to Use Research for Policy Change and Development.

Elgar, Frank J. 09PH-P Rural/Urban Differences in Attachment Characteristics and Behavioural problems in Male Young Offenders.

Epoo, Brenda, 18CH-P Midwifery Education in the Canadian Arctic: Teaching and Learning Across Cultures.

Fisk, John D. 04PH-P Frailty in Rural Canada: Results from the Canadian Study of Health and Aging.

Forbes, Dorothy, 02PH-O Similarities and Differences Between Rural and Urban Home Care Users in Canada.

Fox, George 11PWE-P Snow Crab Occupational Asthma in Newfoundland and Labrador: Prevalence, Exposures, Health and Socio-Economic Consequences, and Prevention.

Funk, Elicia 21PH-P The Centre of Excellence for Child and Youth Friendly Prairie Communities.

Fransoo, Randy 55PH-O Which Indicators and Which Borders? Population-Based Information for Manitoba’s Regional Health Authorities.

Fukushima, Y. 13PWE-P Non-Responders And Responders to Endotoxin Show Different Non-Pulmonary Effects.

Gfellner, Barbara M. 27PH-O Adolescents in School-Based Alcohol and Drug Programs in Rural and Northern Manitoba.

Goyer, Nicole 10PWE-P Microflora of Air and Peat in Peat Moss Processing Plants in Eastern Canada.

Gray, Heather 32HCO-O Health Human Resources Planning: A Northern/Rural Perspective.

Gray, Margot 40CH-O Injuries Are No Accident

Green, Jane S. 12CR-O Development of a Screening Program for a Large Hereditary Colon Cancer Family in Rural Newfoundland.


Haddoon, Arlene 19CH-P Caring Community Contacts.

Carlotte 38CH-O Community Mobilization: Prescription (Opiate) Abuse.

Hanlon, Neil 49HCO-O Rural and Remote Patients Obtaining Secondary-Level Hospital Care Further from Home than Necessary.

Hardy, Cindy 26PH-O Evaluation of the PARTY Program in Northern BC.

Haughton, Dily 29CH-O Empowering Rural Communities to Improve Access to Health Services - Development of Community Well Being Teams.

Havens, Betty 03PH-O The Challenges of Doing Research and Delivering Services in Eastern Canada.
Haworth-Brockman, Margaret

Heller, Bob

Henry, Carol J.

Hogenbirk, John C.

Horth-Susin, Lise

Hounsell, Nancy

Humphries, John

Hynes, Catherine

Israël-Assayag, Evelyne

Janes-Hodder, Honna

Janzen, Bonnie

Jebamani, Laurel

Johnston, Grace

Jong, Michael

Joyce, Margaret

Katt, Mae

Kelley, Mary Lou

Kienapple, Kim

Kinch, Peggy

Kirland, Susan

Kirychuk, S. P.

Knight, John C.


A National Rural and Remote Women's Health Project.

Willing a Way: Gender and Health Planning.


A Survey of Food and Nutrition Policies in Saskatchewan School Division.

The Affect of Telephone Triage Advice on Informal Care Behaviour.

Who Called Ontario’s Telephone Triage Pilot Project?


“Progress Over the Past Decade in Rural Health in Australia - Lessons in Workforce Issues, Service Provision and Consumer Satisfaction”

Injuries Are No Accident.

Influence of Obesity and Time Course of Inflammation After Exposure of Naïve Subjects to a Swine Confinement Building (SCB).

Palliative Care in Rural Newfoundland and Labrador: Differences Among Social Groups in their Capacity to Access Quality End-Of-Life Care.

Similarities and Differences Between Rural and Urban Home Care Users in Canada.

Learning from Linkages: Health and Healthcare Use Patterns of Manitoba's Registered First Nations People.

Where A Cancer Patient Dies: The Effect of Rural Residency.


The Centre of Excellence for Children and Adolescents with Special Needs: Successes and Challenges in Northern and Rural Health Research.

It's Just So Different Up Here: Continuity of Care for Cancer Patients in Northwestern Ontario First Nation Communities.

Using Video-Conferencing for Focus Groups in Rural Health Research.

The Prevalence of Medical Conditions in Urban and Rural Senior Males.

Medication Use, Co-morbidity and Injury in Older Male Farmers.

The Centre of Excellence for Children and Adolescents with Special Needs: Successes and Challenges in Northern and Rural Health Research.

It's Just So Different Up Here: Continuity of Care for Cancer Patients in Northwestern Ontario First Nation Communities.

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Non-Responders And Responders to Endotoxin Show Different Non-Pulmonary Effects.

Rural/Urban Differences in Attachment Characteristics and
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
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<tbody>
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<td>Behavioural Problems in Male Young Offenders.</td>
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<td>Langille, Lynn</td>
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<td>Langille, Lynn</td>
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<td>Snow Crab Occupational Asthma in Newfoundland and Labrador:</td>
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<td>Support of Advanced Practice: The Issues for Nurses in Rural and</td>
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<td>What Works in Knowledge Translation? Evaluating Manitoba's</td>
<td>Martineau, Pascal</td>
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<td>&quot;Need to Know&quot; Project.</td>
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</table>
Marilou, Medves, Jennifer 15HCO-P Rural Maternity Nursing in Ontario.
Mériaux, Anne 10PWE-P Microflora of Air and Peat in Peat Moss Processing Plants in Eastern Canada.
Michalos, Alex 44PH-O Outbreak of Hypersensitivity Pneumonitis in a Hard Wood Transformation Plant.
Michel, Isabelle 33HCO-O Assessing Continuing Education Needs of Nurse Practitioners in Northern and Rural Southern Ontario.
Miller, Robert 39CH-O Promoting Rural Mental Health Through Video Conferencing: Tapping Into Natural Community Networks.
Minore, Bruce 45PH-O Building a Framework and Indicators to Assess Health and Quality of Life of Rural Communities.
Morton, Michel A. 02PH-P Defining Rural and Remote: A Preliminary Survey.
Munro, Ishbel 20CH-O Increasing the Capacity of Rural Communities to Use Research for Policy Change and Development.
Nickerson, Ann 22PH-P Outcome Analysis of a Pharmacist-Directed Seamless Care Service: A Randomized-Controlled Trial.
Olivers, Joanna 29CH-O Empowering Rural Communities to Improve Access to Health Services - Development of Community Well Being Teams.
O'Neil, Peter J. 15HCO-P Rural Maternity Nursing in Ontario.
O'Sullivan, Julia 34SP-O The Centre of Excellence for Children and Adolescents with Special Needs: Successes and Challenges in Northern and Rural Health Research.
Page, Aroha 05PH-P Enhancing Prediction of Breast Cancer Screening Participation Among Women in New Brunswick
Pageau, Pascal 10PWE-P Microflora of Air and Peat in Peat Moss Processing Plants in Eastern Canada.
Pahwa, P. 09PWE-O Sensitization to Airborne Moulds in Peat Moss Factory Workers.
Pennock, Mike 19CR-O Non-Responders And Responders to Endotoxin Show Different Non-Pulmonary Effects.
Peterkin, Beth 30CH-O "Building Community Capacity"
Pickett, Will 15PWE-O Medication Use, Co-morbidity and Injury in Older Male Farmers
Pitblado, Roger 25PH-O Patterns of Mortality Among Young Canadians Living in Rural and Urban Communities.

Accessing Health Services: The Experience of Elderly Rural Couples.
<table>
<thead>
<tr>
<th>Name</th>
<th>ID</th>
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<tbody>
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<td>45PH-O</td>
<td>Building a Framework and Indicators to Assess Health and Quality of Life of Rural Communities.</td>
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<td>Mental Health Services in Rural and Remote Regions: Adaptation of Best Practice Models.</td>
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<td>Rockwood, Kenneth</td>
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<td>Fraility in Rural Canada: Results from the Canadian Study of Health and Aging.</td>
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<td>Rogers, Judy</td>
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<td>Integrated Care Models In Maternity Care: A Potential Solution for Canada's Rural and Remote Communities.</td>
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<td>Rural Maternity Nursing in Ontario.</td>
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<td>Exploring the Development of Informal and Voluntary Care in Rural Ontario: A 'Snap-Shot' of the 1990s.</td>
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<td>The Prevalence of Medical Conditions in Urban and Rural Senior Males.</td>
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<td>A Telehealth Enhanced Partnership for Community Development in Aging and Health</td>
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<td>Rural/Urban Differences in Attachment Characteristics and Behavioural Problems in Male Young Offenders.</td>
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<td>15HCO-P</td>
<td>Rural Maternity Nursing in Ontario.</td>
</tr>
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<td>Simard, Miriam</td>
<td>52PH-O</td>
<td>Immigrant and Non-immigrant General Practitioners in Rural and Remote Areas in Quebec: Considerations of Attraction and Retention Factors</td>
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<td>Simms, Joanne</td>
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<td>The Nature of the Extended/Expanded Nursing Role in Canada</td>
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<td>Assessing the Relevance of the Community Capacity Literature for Rural Health Policy-making and Programming.</td>
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<td>Steindl, David</td>
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<td>Evaluation of the PARTY Program in Northern BC.</td>
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<td>Stitt, Pat</td>
<td>32HCO-O</td>
<td>Health Human Resources Planning: A Northern/Rural Perspective.</td>
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<td>The Centre of Excellence for Children and Adolescents with Special Needs: Successes and Challenges in Northern and Rural Health Research.</td>
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<td>Tarlier, Denise</td>
<td>42HCO-O</td>
<td>Voices from the Wilderness: An Interpretive Study Describing the Role and Practice of Outpost Nurses.</td>
</tr>
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<td>32HCO-O</td>
<td>Health Human Resources Planning: A Northern/Rural Perspective.</td>
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<td>Self-Efficacy Beliefs and Functional Decline in Rural Community-Living Elders.</td>
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<td>33HCO-O</td>
<td>Assessing Continuing Education Needs of Nurse Practitioners in Northern and Rural Southern Ontario.</td>
</tr>
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<td>Van Wagner, Vicki</td>
<td>36PH-O 18CH-P</td>
<td>Bringing Birth Back to Community: Midwifery Care in Nunavik, Canada.</td>
</tr>
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<td>Veilette, Marc</td>
<td>08PWE-O</td>
<td>Midwifery Education in the Canadian Arctic: Teaching and Learning Across Cultures</td>
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<td>Vilches, Silvia</td>
<td>23ABH-O</td>
<td>Exploring Key Determinants of Success in using a Capacity Development Model to Enhance Delivery of Culturally Appropriate Early Childhood Care and Community Wellness Promotion for Families in First Nations.</td>
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<td>Willing a Way: Gender and Health Planning.</td>
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<td>Methodological Discoveries in a Cross-Cultural Participatory Action Research Study of Inuit Family/Kinship and Well-being Across the Lifespan.</td>
</tr>
</tbody>
</table>
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