# AGING RESEARCH IN NEWFOUNDLAND AND LABRADOR: ACHIEVEMENTS AND PROSPECTS

## Research Conference
## Monday, September 24, 2012

## Symposium on a Provincial Centre on Aging
## Tuesday September 25, 2012

**The Pepsi Centre, Corner Brook, NL**

***Keynote Speakers:***
***Dr. Howard Bergman***
***Dr. Neena Chappell***
***Dr. Janice Keefe***
***Dr. Anne Martin-Matthews***

# PROGRAM

*Supported by:*
*Grenfell & St. John's Campus, Memorial University of Newfoundland*
*Newfoundland and Labrador Centre for Applied Health Research (NLCAHR)*
*Government of Newfoundland and Labrador*
*Western Regional School of Nursing*
*Western Health*
*City of Corner Brook*

# Aging Research in Newfoundland and Labrador: Achievements and Prospects

## September 24-25, 2012

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## Message from Conference Planning Committee

On behalf of the conference planning committee, we are pleased to welcome you to the beautiful West Coast city of Corner Brook and to the 2012 Aging Research Conference "Aging Research in Newfoundland and Labrador: Achievements and Prospects." This unique event combines a day of conference proceedings with keynote speakers, concurrent sessions, and poster sessions followed by a planning symposium with its objective "to gather feedback on the recommendations from the HARP research report to determine concrete next steps toward the establishment of a provincial Centre on Aging."

To all our visitors from out of town, we hope you enjoy your stay in our beautiful city and take advantage of some of the wonderful sights found on the West Coast.

Planning Committee Members

Dr. Sharon Buehler
Dr. Stephen Bornstein
Dr. Suzanne Brake
Dr. Les Cake
Dr. Jared Clarke
Dr. Michelle Ploughman
Kelli O'Brien
Dr. Carla Wells
Dr. Gail Wideman
Dr. Wendy Young

Acknowledgement

We would like to gratefully acknowledge numerous other people who assisted with the planning and/or delivery of the conference. They are:

Charles Pender
Marie-Claude Renaud
Staff of Grenfell Campus, Memorial University of Newfoundland
Staff of NLCAHR
Staff of Western Regional School of Nursing

## CONTRIBUTORS

Our sincere appreciation is extended to the agencies and people who contributed, both financially and through in-kind support, to the success of this conference.

Thank you...

Grenfell Campus, Memorial University of Newfoundland

St. John's Campus, Memorial University of Newfoundland

Newfoundland and Labrador Centre for Applied Health Research

(NLCAHR)

Government of Newfoundland and Labrador

Western Regional School of Nursing (WRSON)

Western Health

City of Corner Brook

Brooke's Bridal

**PROGRAM**

**SEPTEMBER 24, 2012**
**The Pepsi Centre, Corner Brook, NL**
**DAY ONE**

**AGING RESEARCH IN NEWFOUNDLAND AND LABRADOR: ACHIEVEMENTS AND PROSPECTS**

| | |
|---|---|
| **7:30-8:30** | **REGISTRATION** (Coffee/tea will be available) |
| **8:30-8:45** | **WELCOME - Rm 2** |
| **8:45-9:30** | **KEYNOTE** - Dr. Janice Keefe - **Aging Research in Atlantic Canada - Rm 2** |
| **9:30-10:00** | **NUTRITION BREAK & POSTER DISPLAY** |
| **10:00-12:00** | **CONCURRENT SESSIONS** (12 sessions) - **Rm 1 & 3** |
| **12:00-13:20**<br>**Keynote**<br>**12:30-1:15** | **BUFFET LUNCH (Canada House)**<br>**WITH KEYNOTE (Rm 2)** - Dr. Howard Bergman - **The Quebec Alzheimer Plan: The Never-Ending Cycle from Practice to Policy to Research and Back** |
| **1:20-3:00** | **CONCURRENT SESSIONS** (10 sessions) - **Rms 1 & 3** |
| **3:00-3:35** | **NUTRITION BREAK & POSTER DISPLAY** |
| **3:35-4:20** | **CLOSING KEYNOTE** - Dr. Anne Martin-Matthews - **Community Engagement in Aging Research - Rm 2** |
| **4:20-5:00** | **SWOT Analysis of the Provincial Centre on Aging Initiative - Rm 2**<br>*Moderator - Dr. Wendy Young*<br>*Presenters - Dr. Gail Wideman, Dr. Sharon Buehler* |
| **5:00-5:10** | **CLOSING** |
| **6:30** | **SUPPER** (to be held at the Royal Canadian Legion at 7 West St) with Keynote Speaker - Dr. Neena Chappell - **An Appropriate and Cost-Effective Health Care System for an Aging Society** |

**PROGRAM**

**SEPTEMBER 25, 2012**
**DAY TWO**

**A PLANNING SYMPOSIUM FOR A PROVINCIAL CENTRE ON AGING**
**ALL PRESENTATIONS WILL OCCUR IN RM 2**

**Objective of Day 2: to gather feedback on the recommendations from the HARP research report to determine concrete next steps toward the establishment of a Provincial Centre on Aging**

| | |
|---|---|
| **7:30-8:30** | **Registration (Coffee/tea will be available) - Rm 3** |
| **9:00-10:00** | **BACKGROUND - Rm 2: *Survey of Centres across Canada and recommendations for a NL Centre on Aging***<br>*Moderator: Dr. Stephen Bornstein*<br>*Invited Panelists: Dr. Les Cake, Dr. Gail Wideman, Dr. Carla Wells* |
| **10:00-10:30** | **BREAK - Rm 3** |
| **10:30-11:30** | **REFLECTIONS, FEEDBACK AND ADVICE ON A NL CENTRE ON AGING - Rm 2 : *Lessons from the experience of others***<br>*Moderator: Dr. Gail Wideman*<br>*Invited Panelists: Dr. Neena Chappell, Dr. Howard Bergman, Dr. Anne Martin-Matthews, Dr. Janice Keefe* |
| **11:30-12:30** | **LUNCH - Rm 3** |
| **12:30-1:30** | **SCOPE AND MANDATE - Rm 2: *What a NL Centre should do***<br>*Moderator: Dr. Jared Clarke*<br>*Invited Panelists: Dr. Susan Gillam, Bernice Buckle, Dr. Wendy Young, Dr. Gail Wideman* |
| **1:30-2:30** | **PARTNERSHIPS AND COMMUNITY ENGAGEMENT - Rm 2: *Building partnerships for a Centre on Aging***<br>*Moderator: Dr. Sharon Buehler*<br>*Invited Panelists: Rosemary Lester, Kelli O'Brien, Dr. Antony Card* |
| **2:30-2:50** | **BREAK - Rm 3** |
| **2:50-3:50** | **LEADERSHIP AND ADMINISTRATION - Rm 2*: Organization, administration and structure of a NL Centre on Aging***<br>*Moderator: Dr. Michelle Ploughman*<br>*Invited Panelists: Dr. Neena Chappell, Dr. Janice Keefe, Dr. Stephen Bornstein, Dr. Les Cake* |
| **3:50-5:00** | **GOING FORWARD - Rm 2: *Wrap up***<br>*Moderator: Dr. Sharon Buehler*<br>*Invited Panelists: Dr. Mary Bluechardt Dr. Antony Card, Dr. Stephen Bornstein, Dr. Les Cake* |

**September 24, 2012**
**Concurrent Sessions - Abstracts**

| Time | Room 1 | Room 3 |
|---|---|---|
| | Health & Health Institutions | Physical Function & Participation |
| **10:00 - 10:20 am** | C.1 Parke/NLCAHR: Age-friendly acute care in Newfoundland & Labrador | C.7 Gien-Older job seekers in NL: Factors influencing employment opportunities |
| **10:20 - 10:40 am** | C.2 Brown-Mobilizing seniors: Promoting health and wellness through restorative care | C.8 Mandeville-Anstey- Using institutional ethnography to explore the meaning and organization of work, health, and safety of aging workers in the home support sector |
| **10:40 - 11:00 am** | C.3 O'Brien-The impact of relocation on functioning of older adults with mild to moderate dementia | C.9 Woodrow –Environmental factors and their impact in out-of-home social participation among elderly Canadians with mobility disabilities |
| **11:00 - 11:20 am** | C.4 Welsh-Meaning in Life: the perspectives of long term care residents | C.10 Ploughman-The Canadian survey of health, lifestyle and aging with MS: A preliminary report |
| **11:20 - 11:40 am** | C.5 Wells, J. -Family perspectives in relocation of residents from nursing home to assisted living | C.11 Shears-NeuroFIT: A novel community-based exercise program for people with neurological disabilities |
| **11:40 - 12:00 am** | C.6 Wells, C. - Provider Satisfaction within the Protective Community Residences | C.12 Byrne-Visual Information about limb position is used to help control lower limb motion during an obstacle avoidance task following total knee joint arthoplasty |
| | Psychosocial Health | Community Living |
| **1:20 - 1:40 pm** | C. 13 Wells- Spousal Caregiving and Institutionalization: Living in Two Worlds | C.18 Bergman/NLCAHR-Community-based service models for seniors in Newfoundland & Labrador |
| **1:40 - 2:00 pm** | C.14 Siegal-Determining services and needs to address elder abuse in NL | C.19 Clarke-Expectations & realities: Support and challenges for stroke survivors living at home in rural Newfoundland |
| **2:00 - 2:20 pm** | C.15 Newton-Clinical applications of mindfulness to elder care | C.20 Wallack-The Feasibility of an Internet Based Self-Management Program with One-on-One Skype Support for Informal Caregivers of People with Dementia Living in Rural Newfoundland and Labrador. |
| **2:20 - 2:40 pm** | C.16 Hewitt-Parsons-"Remembering When: Cognitive rehabilitation through the arts" | C.21 DiDonato-How enhancements to the auditory-verbal message impacts memory for prescription in older adults |
| **2:40 - 3:00 pm** | C.17 Richards-Using the salutogenic approach to assess resilience among Newfoundland & Labrador seniors | C.22 Zhang-Novel metabolomics markers for aging identified by a metabolomics approach |

## Concurrent Sessions - Abstracts

## C1 Age-Friendly Acute Care in Newfoundland and Labrador

Dr. Belinda Parke, RN PhD (University of Alberta)
Dr. S. Bornstein (Newfoundland and Labrador Centre for Applied Health Research)
R. Kean (Newfoundland and Labrador Centre for Applied Health Research)
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**Background/Purpose**: Older patients place proportionally greater demand on hospital services than other age groups, and as their share of the population grows, we can expect that demand to grow along with it. The province's senior health decision makers asked the Newfoundland & Labrador Centre for Applied Health Research (NLCAHR) to synthesize research-based evidence on age-friendly approaches to acute care. Our research question is as follows: ""*What programs and/or services are associated with improved outcomes for older adults admitted as inpatients to acute-care hospitals?"*

**Study Population**: Hospital inpatients 65 years of age and over

**Methods**: This project is being carried out under the Contextualized Health Research Synthesis Program (CHRSP). CHRSP is an integrated knowledge transfer and exchange initiative that partners health system decision makers, local and national experts, and NLCAHR researchers on a Project Team. Project topics are identified and prioritized by health system decision makers in consultation with NLCAHR. The project itself includes a synthesis of systematic review literature and high quality primary research literature on the topic in question. In addition, the findings from the synthesis are interpreted in the context of the Province in terms of patient characteristics, design of service, health human resources, the health system, and economic and political factors. This process of 'contextualization' assesses the potential of the listed factors to influence the clinical or cost effectiveness of the studied interventions. The multi-sector Project Team participates in all stages of the project and plays key roles in the dissemination of the findings.

**Findings**: TBD

**Conclusions**: TBD (completion date June 2012)

## C2 Mobilizing seniors: promoting health and wellness through restorative care

Heather Brown, M Ed. BN. RN., Vice President Rural Health, Central Regional Health Authority, Irene Pack, B.S.W, R.S.W,
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Statistics Canada predicts that 20% of the population of NL will exceed the age of 65 within 10 years (Provincial Healthy Aging Implementation Plan, 2008). Many are questioning the impact of an aging population on the sustainability of our health care system.

Today's frailest seniors often suffer from multiple chronic conditions. Once in hospital they stay there. Every day in hospital results in a 5% loss of function, diminished muscle mass and reduced strength (CIHI, 2011, Gillis & Macdonald, 2005, cited in Western Health, ALC Presentation, 2009). An extended stay could mean that the person never lives independently at home again.

With this in mind, Central Health examined aspects of the health care system that could respond better to the unique needs of seniors. As a result, a new restorative care approach was developed based on a review of similar programs across Canada. This presentation will describe the development and evaluation of a restorative care pilot project.

An evaluation of the project included the analysis of interviews with key stakeholders, satisfaction surveys and indicator reports. Early findings of the evaluation reported that 80% of participants returned to community. Additional evaluation of functional outcomes, client satisfaction and long term outcomes are still being measured as part of a formal research study in collaboration with Memorial University.

The project has demonstrated that restorative care can promote the health and wellbeing of frail seniors enabling them to return home and avoid early entry into long term care.

## C3 The Impact of Relocation on Functioning of Older Adults with Mild to Moderate Dementia.

Kelli O'Brien, Western Regional Integrated Health Authority
Judith Wells, Western Regional School of Nursing
Darlene Hutchings, Western Regional Integrated Health Authority
Carla Wells, Western Regional School of Nursing
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In 2008, Western Health, one of four regional health authorities in Newfoundland and Labrador, implemented a new model of care for individuals with mild to moderate dementia known as the Protective Community Residences (PCRs). The PCRs were specifically designed to meet the environmental, functional and psychosocial needs of individuals with mild to moderate dementia. Being the first health authority in the province to introduce this alternative care model provided a unique opportunity to explore the impact of relocation and implications within the context of the provincial health system.

This quantitative study examined changes in functioning in individuals who were relocated from private homes or institutionally based care to the PCRs. Standardized instruments were used to measure aspects of cognitive, behavioral, and functional abilities prior to relocation and within 6 – 8 weeks following relocation. Cognitive functioning was measured using the Folstein Mini Mental Status Examination[1], and the Global Deterioration Scale[2-4]. Behavior was measured using the Neuropsychiatric Inventory[5] and functional abilities were measured using the Disability Assessment for Dementia[6,7]. Although not statistically significant, improvements were noted in functional abilities and in specific behaviors. Slight deterioration, although not significant, was observed in cognitive functioning. These findings suggest that a model of care that promotes purposeful activities and social interactions may have a positive impact on overall function of individuals with mild to moderate dementia. These findings will be of interest to policy makers and administrators involved in future program planning and care delivery models for individuals with dementia.

**References:**

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**C4 Meaning in Life: The Perspectives of Long Term Care Residents**

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Meaning in life is an important concept that has particular relevance in the later stages of life. Ability to find meaning has potential impacts upon physiological and psychological health, influencing overall well-being. Understanding this phenomenon is critical in the enhancement, development, and delivery of long term health care programs and services. The current study offers an important beginning exploration of meaning in life from the perspectives of long term care residents.

Hermeneutic phenomenology, as described by van Manen (1997), was used to explore how older adults living in long term care experience meaning in their lives. A brief description of the methodology utilized in this research, emerging themes, and implications for practice will be presented. The four emerging themes will be the primary focus of the presentation: connectedness, engaging in "normal" activities, survival despite declining functional capacity, and seeking a place of refuge. Study findings have significant implications for community advocates, seniors, researchers, students, policy makers and health care providers and others who have the potential to enrich the lives of current and future long term care residents.

**C5 Family Members Perspectives on Relocation of Residents from Nursing Home to Assisted Living**

**Presented by:** Judith J.L. Wells, MN, Western Regional School of Nursing, P.O. Box 2005, 1 Brookfield Avenue, Corner Brook, NL. A2H 6J7, Email: jwells@grenfell.mun.ca

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Within the Western Health region, care options for the majority of individuals diagnosed with mild to moderate dementia have been limited to institutional long term care. In 2004, the Provincial Government of Newfoundland and Labrador allocated funding for the redevelopment of long term care within the region. This redevelopment included the construction of four protective care residences in which care delivery would be based on the assisted living model, for individuals diagnosed with mild to moderate dementia. In 2008, three protective care residences were completed and ready for occupancy. The relocation of residents from institutionally based long term care to these assisted living residences provided a unique opportunity to explore and learn from the experiences of family members of residents who relocated.

In this hermeneutic phenomenological study, semi-structured interviews were conducted with 10 family members and six themes emerged: (a) ongoing communication, (b) relief and contentment, (c) meaningful activities, (d) enhanced environment, (e) improved functioning, and (f) engaged staff. This study demonstrated that client-centered care results in positive outcomes for residents and family members. The presentation will discuss these findings and the significant implications for care delivery and for future program planning in caring for residents with mild to moderate dementia. Community advocates, seniors, researchers, students, policy makers and health care providers will be interested in learning about the outcomes of this study.

**C6 Provider Satisfaction within the Protective Community Residences**

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In Western Newfoundland, new protective community residences (PCR) were built to provide a living environment specially designed for older adults with mild to moderate dementia. This represented a new model of care and support for this population in the province. One of the methods of evaluation following the relocation of residents to the PCR was provider satisfaction focus groups. The purpose of this qualitative study was to determine staff's overall satisfaction with the PCR in four key areas: the new environment; quality of care and safety; appropriateness of admissions to the residences; and leadership support.

Three focus groups were scheduled and all staff was invited to attend. All participants who volunteered were included in the study. Group discussions were facilitated by a member of the researcher team and were tape-recorded to facilitate transcription and analysis of the data. A second member of the team attended the focus group sessions and recorded notes during the sessions.

Following transcription of the sessions, two members of the research team analyzed the data, first individually, then together, to determine key themes. Data analysis is ongoing and final results of this thematic analysis will be presented during this session and will include successes of the PCR project as well as lessons learned.

## C7 Older Job Seekers in NL – Factors Influencing Employment Opportunities

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**Background/Purpose**: Increasing life expectancy and healthier lifestyles create opportunities for older adults to remain in employment longer. This study, as part of a collaboration between Canada and the UK aims to explore factors that affect older job seekers' motivation and employability.

**Study Population**: Job seekers (50 years and older) in NL were invited to participate in an interview.

**Methods**: Study data were analyzed using qualitative and quantitative methods.

**Preliminary Findings**: A total of 10 job seekers (50% females) with mean (SD) age of 61.8 (4.8) years were included in this analysis. The majority of participants were previously employed by government and healthcare. Most job seekers (60%) looked for job opportunities outside of their domains and felt confident/very confident (80%) in their ability to find work. The main motivators included personal satisfaction (70%), financial gains (40%), intellectual stimulation (40%), and socialization (30%). Older job seekers were challenged by age and competition with younger workers. Their experience/expertise was described as an asset. Flexible hours, light work, and less stressful work environments were preferred. Lack of advanced computer skills and education and job shortages in the province hindered older job seekers. Financial stability, societal contributions, intellectual stimulation, and socialization were included as incentives.

**Conclusions**: It is important to increase awareness of job opportunities for older job seekers in the province. To shorten and accentuate job seeking experience it would be helpful to create community centres offering career advisement and training.

C8 **Using institutional ethnography to explore the meaning and organization of work, health, and safety of aging workers in the home support sector**

Sue Ann Mandville-Anstey BN., MN., PhD (c)

Demographic trends both provincially and nationally indicate increasing life expectancy and growing numbers of older adults living with chronic disease and disability. This demographic change has also resulted in increasing numbers of older adults choosing to remain engaged in the workforce past the traditional age of retirement.

Using a method of inquiry called Institutional Ethnography, this study investigated and made visible the policies and texts that organized and determined the everyday experiences and decisions of older workers relating to health and safety. The exploration of health and safety practices as well as policies and government systems regulating the employment of older workers in this sector workers can be summarized into three threads: Transgressing Boundaries- More Than Just a Job; Making it Work in Unhealthy and Unsafe Work Environments; and the Experience, Orientation and Training Necessary to do the Work.

The findings from this research suggest that decision making practices to engage in risk taking behavior impacting health and safety is influenced by both the meaning of work as well as the close and personal relationships that workers have with their clients. These findings highlight the complexity of issues in this sector and how this disconnect results from a lack of understanding between organizations, agencies, and the front line workers. It is anticipated that the recommendations for policy and practice developed from this research will impact health and safety to positively influence recruitment and retention of experienced workers in this sector.

**C9 Environmental Factors and their impact on out-of-home social participation among elderly Canadians with mobility disabilities**

**Authors:**

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(2) Jennifer Woodrow, Division of Community Health & Humanities, Faculty of Medicine, Memorial University of Newfoundland

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**Background/Purpose**: The WHO's International Classification of Functioning, Disability and Health (ICF) conceptual framework indicates that function/structure impairment and environmental factors are correlated with restrictions in social participation. Based on the ICF model, the objectives of this study were: (1) to describe the patterns of out-of-home social participation among elderly Canadians with mobility disabilities; and (2) to investigate how environmental factors in home design affect out-of-home participation among the study population.

**Study Population**: The study included 6,038 individuals 65 years of age and older who participated in the 2001 Participation and Activity Limitation Survey conducted by Statistics Canada.

**Methods:** A measure for out-of-home social participation was derived from 8 activity indicators. Environmental barriers in home design included lack of specialized features and self-perceived barriers in home layout/design. Other variables included severity level of mobility disability, income, age, gender, and living status. Logistic regressions were applied to examine associations between predictor variables and social participation.

**Findings**: Environmental barriers in home design significantly contributed to restrictions in out-of-home social participation (OR = 1.36, 95% CI = 1.10 – 1.69, $p < 0.01$). People with severe level of disability (OR = 3.12, 95% CI = 2.73 – 3.56, $p<0.01$) were less likely to report engagement in such behaviours. Living status greatly modified the impact of study variables on the social participation among the study population.

**Conclusions**: Environmental barriers in home design and living status significantly affect out-of-home social participation among elderly Canadians with mobility disabilities. Therefore, reducing environmental barriers may enhance social participation and mobility.

## C10 The Canadian Survey of Health, Lifestyle and Aging with Multiple Sclerosis; A Preliminary Report

Ploughman M[a], Fisk JD[b], Stefanelli M[a], Beaulieu S[a], Harris C[a], Hogan S[a], Knox K[c],
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**Objective***:* In Multiple Sclerosis clinics, one of the most important questions patients ask is, 'What should I expect in the future and how will the disease progress?'. This cross-Canada survey examines how health and lifestyle factors influence aging with MS. Our older clients with MS are a wealth of knowledge about aging with a chronic disease.

**Methods***:* We are surveying a purposeful sample of 1000 older people with MS in Canada who are 55 years of age and older with MS symptoms for more than 20 years. Participants are recruited by telephone from a list generated from the MS databases in all Canadian provinces. The survey is comprised of multiple patient-reported outcomes that were chosen based on initial qualitative studies and a minimal set of previously validated instruments that measure the specific domains; exercise, diet, alcohol use, smoking, social support, financial security, activities, mental and cognitive health, functional ability, co-morbidity, HRQoL and disease characteristics. How factors relate to one another and to the primary outcomes (HRQoL and disability) will be analyzed using structural equation modeling.

**Results:** Preliminary results represent the first 250 respondents in 7 provinces. The 184 females (aged 64 $\pm$ 5.8) and 56 males (aged 55-83) reported living with MS symptoms for about 33 years. Over 86% live in their own home with the remainder residing in assisted living and long term care facilities. The majority of the group describe moderate to extreme impact of MS on daily life. Social support, resilience, financial stability and mental health are strongly associated with both disability and self reported quality of life in this group. Data gathering and analysis is ongoing.

**Conclusion***:* This survey presents a comprehensive examination of factors that affect disability and HRQoL in older people with MS. Preliminary findings suggest social engagement and resilience are important factors in perceived HRQoL.

## C11 NeuroFIT: A novel community-based exercise program for people with neurological disabilities

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**Objective***:* Stroke, brain injury, and Parkinson's are the most common causes of neurological disability, affecting seniors more than young adults, and often resulting in problems with movement, sensation and mental functions. People with neurological disability rarely progress their mobility outside their homes or increase participation in their former life roles. In order for people with disability to participate in community fitness and wellness programs, they need a combination of professional support from physiotherapists, appropriate programming and accessible space. There are no such programs in Newfoundland & Labrador. The purpose of this project was to partner with a community organization (YM/YWCA) to develop, implement and test a community exercise program for people with neurological disability.

**Methods***:* 11 participants (average age of 61) were recruited sequentially through an outpatient physiotherapy department. To participate, they had to be able walk for 10 metres with or without assistance or walking aid and be evaluated by their medical doctor. The exercise program consisted of 10 exercise stations that focused on progressively challenging activities such as sitting and standing, balance, strengthening, aerobic conditioning and skills for walking outside. We recruited university students and other volunteers to provide 1:1 assistance. The program ran twice per week for 15 weeks. Participants' walking, strength, mood, satisfaction and activities of daily living were measured before and after the program.

**Results***:* Participants made improvements in balance and walking capacity as well as level of independence in everyday activities. One participant withdrew due to an unrelated medical complication. Other than one incident, a near fall, the program ran smoothly. A new group began May 17, 2012.

**Conclusion***:* The results suggest that through well-designed and monitored exercise program in an appropriate space, persons with neurological disability were able to improve their mobility and independence. Programs such as ours can help decrease risk of fall, injuries and readmission to hospital.

**C12 Visual information about limb position is used to help control lower limb motion during an obstacle avoidance task following total knee arthroplasty.**

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**Background/Purpose:** During knee replacement surgery numerous sensory receptors are removed from the knee joint. Their removal is felt to lead to diminished position sense in the replaced joint and alteration in motor control. As a result it is hypothesized that following knee replacement individuals may rely more heavily on visual information about limb position to control limb movements. The current research examined this hypothesis.

**Study Population**: Ten individuals were examined: 5 healthy age matched controls and 5 individuals who had undergone a unilateral knee replacement an average of 20 months prior.

**Methods:** While walking along a 10m walkway participants were asked to step over an 18cm obstacle placed in their path. A total of 16 trials were performed – for half these trials individuals' wore custom designed glasses that prevented them from seeing their lower limbs. Normal vision was permitted for the remainder of the trials. Lead limb toe clearance (and its variability), lower limb joint angles and temporal measures were examined.

**Findings:** With restricted vision, patients exhibited increased limb lowering time. Toe clearance variability was also higher.

**Conclusion:** The increase in limb lowering time observed in patients when vision was restricted corresponded to the observation that patients appeared to be "searching" for the ground during this phase. This suggests that patients relied more heavily on vision to guide limb movement than controls. The increased variability in surgical limb toe clearance also supports this claim. As a result, following knee replacement, individuals may be at increased risk of trips or stumbles when external conditions prevent observation of the lower limbs.

## C13 Spousal Caregiving and Institutionalization: Living in Two Worlds

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### Abstract

In this presentation, the author will present a discussion of the grounded theory, Living in Two Worlds, a theory that emerged from interviews of older spouses who had admitted a partner for permanent placement, set within the context of current literature. Living in two worlds referred to spouses' experiences of dividing thoughts, energies, and presence in the world of their homes and in the world of their partners' institutions. The three covariables of grieving silently, developing new relationships and routines, and coming to terms identified the three phases that spouses went through following the placement experience. The experiences of spouses, as well as nonspousal caregivers, have been discussed in the literature; this presentation will present a discussion of that literature, especially within the context of the aforementioned theory.

## C14 Determining Services and Needs to Address Elder Abuse in NL

**Authors**: Elizabeth Siegel, Communications Coordinator, NL Network for the Prevention of Elder Abuse (Seniors Resource Centre of NL) and Rosemary Lester, Chair, NL Network for the Prevention of Elder Abuse (Seniors Resource Centre of NL) Home phone: 709-753-1381; Office: 709-737-2333 (Seniors Resource Centre of NL) Email: bizsiegel@nf.sympatico.ca

**Background information:**
The Elder Abuse Committee of NL (now the NL Network for the Prevention of Elder Abuse) has completed a series of studies/projects since 2004 to help determine how best to support seniors affected by elder abuse. These include:

- *Looking Beyond the Hurt: A Service Provider's Guide to Elder Abuse:*
  This desktop reference tool was developed help service providers to identify and support victims of elder abuse. Developed with the support of the RCMP, the RNC, and 13 professional health organizations and schools, the guide provides a concise overview of the indicators of elder abuse, relevant legislation, and regional resources for seniors.
- *A Strategic Plan to Address Elder Abuse in NL:*
  This plan was developed by community and government stakeholders who believe society has a responsibility to respond to Elder Abuse. It presents a multi-sectoral, cohesive strategy for the prevention of and response to Elder Abuse.
- "Creating a Community Response to Elder Abuse":
  The goal of this project was: *To design and recommend a coordinated, seamless community response to meet the needs of abused seniors and those that support them, regardless of the time, location, or nature of their circumstances.* It involved working with stakeholders in the province to develop a system or structure for how the government and the community could respond to the needs of seniors who are being abused. The implementation of such a response "model" would help ensure that agencies and organizations work together to provide an efficient, appropriate response to reports of elder abuse in all areas (both rural and urban) of our province.
- "The Faces of Elder Abuse" Symposium in 2004 and the "Preventing Elder Abuse: A Shared Responsibility" in 2011:
  Both of these symposiums had an interactive component that provided participants the opportunity to participate in small group discussions and provide input on what needs and services are required in our province to help address elder abuse.

**Methods:**
Throughout each of these studies/projects/events a variety of methods were used to determine what services stakeholders thought were needed to address elder abuse in our province. These included surveys, focus groups, and community consultations across Newfoundland and Labrador. Target populations included seniors, front-line service providers, representatives from government departments and community organizations, and the general public.

**Findings:**
In this presentation, we would like to briefly share our findings from the reports developed for each of these studies/projects/events:

- *Looking Beyond the Hurt: A Service Provider's Guide to Elder Abuse* (www.seniorsresource.ca/beyond.htm)
- *A Strategic Plan to Address Elder Abuse in NL (2005-2010)* (www.nlnpea.ca/newsletters_resources)
- *Creating a Community Response to Elder Abuse: A Model for NL* (www.nlnpea.ca/newsletters_resources)
- *Input to Lead Our Way: Stakeholder Priorities for the Newly Formed Newfoundland and Labrador Network for the Prevention of Elder Abuse* (www.nlnpea.ca/newsletters_resources) and *Proceedings from the Faces of Elder Abuse Conference 2004* (www.seniorsresource.ca/docs/Conference_Report.pdf)

## C15 CLINICAL APPLICATIONS OF MINDFULNESS TO ELDER CARE

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Since Dr. Jon Kabat-Zinn introduced Mindfulness Based Stress Reduction (MBSR) for chronic pain sufferers at the University of Massachusetts Medical School thirty years ago, mindfulness based strategies have been applied to a number of clinical conditions. Extensive research has shown the benefits of MBSR. Studies have been made to examine the effects of mindfulness practice on a number of long-term health conditions such as hypertension, fibromyalgia, eating disorders, anxiety, depression, PTSD and the stress that accompanies cancer outpatients. In addition, fMRI brain scans have shown changes in the structure of the brain in those who have been practicing mindfulness.

This presentation will highlight some of these studies and show how mindfulness-based strategies have been applied to aging populations. Studies have demonstrated that the elderly who have been trained in and practice mindfulness, experience a decrease in blood pressure, relief of lower back pain, a reduction in cellular aging and an increased ability to handle many of the stressors of growing old. Research has also shown that mindfulness practice has had a beneficial impact on the stress felt by care givers of the elderly.

This presentation introduces mindfulness as a low cost and effective drug free treatment for aging populations and should be of interest to health care administrators, primary care givers and the elderly who are living independently and those in sheltered housing.

## C16 "Remembering When" program: Cognitive rehabilitation through the arts

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Many people are familiar with art therapy for its healing effects on trauma and abuse survivors. For the last 9 years, this author has worked with local geriatric and neurologically impaired populations to try and determine how much the manipulation of line, shape and colour assists in the rebuilding of cognitive ability. Based upon her own experience and research, she created a series of picture components designed to stimulate cognitive function. She was awarded her first small project grant in 2008 and, with input from the Western Memorial Recreation staff, worked with a small group of patients in the Alzheimer's unit on the 5$^{th}$ floor of Western Memorial Hospital in Corner Brook. Her "first edition" drawings were designed primarily to be reminiscent of an earlier era in the patients' lives. In putting together these components and "remembering when", it was generally felt that these residents would be calling on a diverse array of cognitive resources, telling a story where words were not necessary. Overall, the first run of her program was an overwhelming success. The participants enjoyed themselves as they experienced improvements in mood, sociability, motivation, self esteem and autonomous functioning. The author and other hospital staff agreed that they could see improvements in attention span, focus, mental stamina, motor control and communication ability during the 8 weeks of the program. She has made several revisions to her first version of the program since then, each designed to more accurately target cognitive deficits.

## C17 Using the Salutogenic Approach to Assess Resilience among Newfoundland and Labrador Seniors

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In this re-analysis of an Atlantic Canadian study, we apply a *salutogenic* framework to the qualitative findings from the 4 Newfoundland- and Labrador-based focus groups (2 remote; 1 rural; 1 urban) of the Atlantic Senior's Housing Research Alliance (ASHRA). The salutogenic approach (Antonovsky 1989; Wiesmann and Hannich 2010) advances a 'successful aging' framework by concentrating on the causes of health and its maintenance and promotion (rather than on pathogenesis and prevention of disease or illness) to reveal further insights about several dimensions of health, such as resilience among Newfoundland and Labrador seniors in the areas of mental, physical, and self-assessed health. Resilience generally refers to the capacity to bounce or spring back from a physical, emotional, financial, or social challenge.

Contributing such knowledge on resilience about seniors in Newfoundland and Labrador is critical because life in this region is unique, presenting several barriers to the Canadian social determinants of health (e.g., housing, finances, access to health and social care, culture, etc.), all of which can affect one's ability to be resilient. Moreover, Newfoundland and Labrador has one of the highest percentages of seniors nationally.

Using the salutogenic framework (i.e., identifying generalized resistance resources, sense of coherence, and balance of health-ease/disease), our analysis provides insight into *how* seniors participating in the ASHRA project were able to be resilient, i.e., maintain or sustain their mental, functional, and social health. This type of information will be informative for policy makers and planners to help them identify how to address barriers affecting resilience.

## C18 Community-based Service Models for Seniors in Newfoundland & Labrador

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**Background/Purpose**: Older persons in Newfoundland & Labrador are living longer than before and want to stay at home as much as ever. The province's senior health decision makers asked the Newfoundland & Labrador Centre for Applied Health Research (NLCAHR) to synthesize research-based evidence on models of coordinated primary medical and community care, including health and social services, to support community-dwelling older persons.

**Study Population**: Older persons with functional disabilities and mild to complex chronic health conditions, including dementia, and their caregivers, living at home in Newfoundland & Labrador.

**Methods**: This project is being carried out under the Contextualized Health Research Synthesis Program (CHRSP). CHRSP is an integrated knowledge transfer and exchange initiative that partners health system decision makers, local and national experts, and NLCAHR researchers on a Project Team. Project topics are identified and prioritized by health system decision makers in consultation with NLCAHR. The project itself includes a synthesis of systematic review literature and high quality primary research literature on the topic in question. In addition, the findings from the synthesis are interpreted in the context of the Province in terms of patient characteristics, design of service, health human resources, the health system, and economic and political factors. This process of 'contextualization' assesses the potential of the listed factors to influence the clinical or cost effectiveness of the studied interventions. The multi-sector Project Team participates in all stages of the project and plays key roles in the dissemination of the findings.

**Findings**: TBD

**Conclusions**: TBD (completion date August 2012)

## C19 Expectations & Realities: Support and Challenges for Stroke Survivors Living at Home in rural Newfoundland

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**Background:** Stroke is a leading cause of disability, its incidence increases significantly with age, and its prevalence is expected to increase in our aging society. The demographic and geographic realities of Newfoundland & Labrador make it difficult to provide continuing care and support for many stroke survivors living at home.

**Methods:** Participants were aged fifty years or more, had recently experienced a first-time stroke, and were preparing for discharge from inpatient care at the time of enrollment. Participants were purposely recruited from both rural and urban communities in eastern Newfoundland. Semi-structured interviews were used to explore the themes of supports and challenges while living at home. Interviews were carried out both at discharge and 6-9 months later.

**Results:** Thematic analysis revealed a number of emerging themes in relation to the where people lived (among others). A lack of day-to-day health services in rural communities force many stroke survivors to "do without" some aspects of continuing care in order to remain in their own community. While community and family supports are important to stroke survivors regardless of where they live, those in more rural communities tend to view these as essential to their continued well-being.

**Conclusions:** The lack of long-term support and community-based services in rural regions represents a significant gap in current stroke strategies. The lessons learned from this study have implications that expand well beyond the concerns of stroke survivors, especially as we develop new plans and policies to support aging populations in our many rural communities.

**C20 The Feasibility of an Internet Based Self-Management Program with One-on-One Skype Support for Informal Caregivers of People with Dementia Living in Rural Newfoundland and Labrador**

**Elizabeth M. Wallack, MSc. Student, MUN, Dr. Wendy Young, MUN**

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**Background**
Many studies suggest caregiver training can reduce feelings of burden among informal caregivers which can translate to a better quality of life for those with dementia, as well as the caregivers themselves.(1) Some studies have shown that improving caregiver burden can allow the individual with dementia to stay in the home longer.(2) Many studies have explored the use of technology as a means of delivering successful caregiver interventions remotely,(3, 4, 5) however very few have used a Skype based component as a means of reaching rural dementia caregiver populations,(6, 7) and none have done so in the province of Newfoundland and Labrador.

**Purpose**
The purpose of this study is to find ways to offer support in the community to informal caregivers of individuals with dementia in rural Newfoundland and Labrador.

**Research Questions**
1) At baseline, what problems do informal caregivers of people with dementia in rural Newfoundland and Labrador define as self-set goals?
2) Does the six week, online, self-management program that includes an option to have one-on-one Skype sessions lead to goal attainment?
3) How many individuals who enroll in the six week, online, self-management program have access to a webcam?
4) How many individuals who enroll in the six week, online, self-management program choose to have one-on-one follow up Skype sessions with the Alzheimer Society?

**Methods**
A mixed methods approach will be used with a pre-test/post test (before/after) design to measure informal caregiver's self-set goal attainment with the addition of a qualitative component to better understand the experiences of caregivers using Skype. Approximately 15-25 informal caregivers providing care to an individual with dementia from rural communities in Newfoundland and Labrador will be recruited. Rural communities are operationalized by the Provincial Government's Rural Secretariat definition, which includes communities with less than 5000 residents. Additionally, participants will be included if they travel in excess of 45 minutes to access dementia support services.

The study will take place September 2012- February 2013 for a total of 22 weeks. In week one, participants will begin by identifying problems and setting goals for themselves through Goal Attainment Scaling. They will then participate in a six week long online education and skill building workshop. Finally, they will be offered a follow up phase of 15 weeks during which time the Alzheimer Society will provide one-on-one support via Skype. Status updates of goals will be recorded for those who do not wish to participate in the Skype follow up at the end of week 7. Status update of those who chose to participate in the Skype follow up will be recorded at the end of week 22.

The content of the education sessions has yet to be finalized. This decision process has been undertaken through a working partnership with the Alzheimer Society of Newfoundland and Labrador. Currently we are discussing the possibility of using the Building Better Caregivers Program (BBC)- a Stanford Self-Management Program. The following is a description of the BBC written by the Idaho Commission on Aging:

"The Building Better Caregivers program was developed at Stanford University. It is a six-week workshop offered on a dedicated website. BBC does not require “real time” attendance (i.e., there are bulletin boards rather than chat rooms).

The workshop is facilitated by two trained facilitators. A number of topics are addressed including: stress management, difficult care partner behaviours, sleep, healthy eating, exercise, difficult emotions, care partner emotions, making decisions, finding help and making plans for the future. Participants are asked to log on two to three times a week for a total of one to two hours. Weekly activities include reading and interacting via the Learning Center, making and posting a weekly action plan, participating in problem solving and guided exercises on bulletin boards, and participating in any appropriate self-tests and activities. Participants are encouraged to post problems on a bulletin board and help other group members with their problems."(11)

To describe what problems caregivers identify, the relevant proportion of informal caregivers with each defined goal will be reported without statistical tests. Similarly, the overall proportion of informal caregivers who met their goals at 7 or 22 weeks as described though the Goal Attainment Scaling process will be reported. A summary of the GAS data, the value obtained from a Wilcoxon T-test, along the p-value will be reported in order to determine whether the intervention had a significant effect on caregiver's self-set goals. The relevant proportion of informal caregivers with access to a webcam will be reported. The relevant proportion of informal caregivers who choose to have one-on-one follow-up Skype sessions with the Alzheimer Society will be reported.

P21 **How enhancements to the auditory-verbal message impacts memory for prescription instructions in older adults**

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**Background**: Older adults are at higher risk of chronic illnesses, requiring a more challenging medication regimen, both in number and complexity of prescriptions. Stilley et al. (2010) demonstrated that poor medication adherence is related to decreased working memory capacity. However, the authors did not investigate the role of hearing loss as either a mediating or causal factor in working memory decline. Some evidence suggests hearing loss is related to, and may actually cause decreased memory performance (Surprenant, 2007). However the specific nature of the hearing loss was not investigated. Since age-related hearing loss is the 3rd most prevalent chronic medical condition among older adults, determining its role in working memory for medical adherence is important.

**Purpose**: We investigated whether enhancements to the auditory-verbal message would ameliorate the age-related-hearing loss, thereby making prescription medication information more *hearing-handicapped* accessible. By improving the quality of the auditory-verbal message, can we decrease the cognitive effort required to decode the message and therefore facilitate encoding for memory?

**Method**: Recall of complex prescription instructions presented in various degraded conditions, compressed speech in babble, were compared for older adults with particular configurations of hearing loss to younger adults without hearing loss. Different enhancements: expanded speech (expanded to 120% of original recording), and *clear speech technique* (hyper-articulated with longer vowel duration and pauses at meaningful junctions) were tested to see if they resulted in better performance for both groups.

**Findings**: Enhancements of the auditory message during encoding facilitated memory at retrieval, more so for the hearing-impaired older adults.

## C22 Novel metabolomics markers for aging identified by a metabolomics approach

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### Background and Aim
Aging is a complex multifactorial process associated with a wide variety of changes throughout the body, producing gradual deteriorations of tissue and body function that diminishes the capacity of the organism to cope with a variety of stressors. We hypothesize that aging alters or accompanies metabolic changes that are reflected in a serum metabolite composition and that this metabolic change can be reliably detected. Using a non-targeted metabolomics approach, we aimed to identify novel serum metabolic markers for aging.

### Methods
The study participants were from the TwinsUK cohort. Their overnight fast serum samples were previously collected and available for metabolomics profiling. Ultrahigh-performance liquid chromatography/tandem mass spectrometry (UHPLC/MS/MS2) and gas chromatography/mass spectrometry (GC/MS) were used for serum metabolite profiling, which was done by Metabolon, a commercial supplier of metabolic analyses. Mixed linear regression model was used to examine the association between each of the serum metabolite concentration and chronological age taking into account of the relatedness.

### Results
5004 individuals were included in the serum metabolite profiling. 3357 of them had at least one of age-related diseases and were excluded in the analysis. The final analysis was done in 1647 healthy female individuals with a mean age of 53 (range 16-84). 456 serum metabolites were detected in the experiments, 281 are known metabolites and 175 are unknown metabolites. We confirmed that DHEAS was negatively associated with age ($p=4.12*10^{-100}$) and cholesterol was positively associated with age ($p=5.68*10^{-56}$). In addition, we identified 182 novel metabolites to be associated with age ($p <10^{-5}$). These metabolites are involved in metabolic pathways such as Lipid, Amino Acid, Carbohydrate, Xenobiotics, Nucleotide, Energy, Peptide and Cofactors and vitamins.

### Conclusions
The study confirmed the association between age and DHEAS and cholesterol and identified 182 novel metabolic markers that associated with age. These metabolic markers are involved in several metabolic pathways and mostly dependent on each other. Pathway network analysis is on the way to identify the key metabolic markers for aging.

## POSTERS

P.1 Student nurses knowledge and attitudes toward caring for the elderly.
S. Mandville-Anstey

P.2 Home visits-Optimizing Medical care in the Elderly (HOME study).
K. Stringer

P.3 Development of a Novel Digital Engagement Index using the scope, duration and intensity of internet use. - U. Eka

P.4 Dietary intake and eating patterns of elderly people in NL.
L. Liu

P.5 Palliative and end-of-life care for Chinese immigrants and support for family caregivers. - H. Wu

P.6 Can self-referencing explain age differences in eyewitness memory?
J. Canning , K. Warren

P.7 Exploring the association between physical activity, heart disease and aspects of the environment including interpersonal and community factors.
D. Ryan

P.8 Moving with the times. Using technology to teach safe client handling.
B. Oldford, C. Castagne - **Cancelled**

P.9 The psychological consequences of undiagnosed correctable visual impairment: A critical review. - J Buckle

P.10 The eldercare study: Evaluation of a nurse-based program of care.
A. Pike - **Cancelled**

P.11 Cytomegalovirus immune risk phenotype and cognitive functioning in the oldest old. J. Hesson - **Cancelled**

P.12 Analysis of the influencing factors associated with being designated ALC.
E. Lundrigan, A. Barnable, D. Welsh, C. Davis

## Posters - Abstracts

### P1 Student nurses' knowledge and attitudes toward caring for the elderly

**Primary Investigator:** Sue Ann Mandville-Anstey BN., MN., PhD (c)
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There is limited Canadian research on student nurses' knowledge and attitudes toward caring for the elderly. A small number of quantitative research studies have assessed student nurses' knowledge and/or attitudes and findings revealed that nursing students have a lack of knowledge and possess negative attitudes toward the elderly. The purpose of this study was to examine nursing students' knowledge and attitudes toward caring for the elderly in two phases including a comparison of knowledge and attitudes between year 1, 2,3 and 4 of a four year Baccalaureate nursing program as well as after the introduction of a healthy aging course in year one. A non-experimental descriptive research design was used. Two questionnaires (Kogan's Attitudes Toward Old People Scale & Palmore's Facts on Aging Quiz) were distributed to the nursing students in years one through four of the BN (Collaborative) Program at the Centre for Nursing Studies, St. John's, NL. Although the findings revealed no significant differences among Year 1, 2, 3 and 4 with respect to knowledge and attitudes, some differences were noted on individual test items. Analysis of the data following the completion of a healthy aging course in Year 1 demonstrated an improvement in knowledge and attitudes. This study has the potential to make a contribution to nursing research, education, and practice. As educators, we want to use the findings of this study to improve knowledge and attitudes and better prepare nursing students to provide quality care for the elderly.

**P2 Home Visits – Optimizing Medical Care in the Elderly ( HOME Study) – a pilot study on an inter-professional primary care program to decrease emergency room visits and hospital admissions in the frail homebound elderly.**

**Authors:** Katherine Stringer MBChB, CCFP, St. John's, NL ; Carla Dillon BScPharm, ACPR, PharmD,St. John's, NL, Denise Cahill NP, MNs, St. John's, NL; John Knight MSc, PhD, St. John's, NL; Sarah Way St. John's, NL; Marshall Godwin MD, MSc, FCFP, St. John's, NL; Shabnam Asghari MD, MPH, PhD, St. John's, NL; Kris Aubrey MD, MSc, CCFP, St. John's, NL; Cheri Bethune MD, MCISc, FCFP, St. John's, NL

**Context:** Frail elderly patients have an increased number of chronic conditions and require increased health care. Access to care for homebound frail elderly is a challenge. Interprofessional home visit programs (HVP) may be useful to address this challenge.

**Objective:** To examine health utilization trends in our housebound frail elderly patients two years before and after establishment of an interprofessional (nurse practitioner, family physician and pharmacist) HVP.

**Design:** Single centre retrospective interventional study.

**Setting:** Family Practice Clinic, Memorial University, St. John's, Newfoundland, serving the general community.

**Participants:** medical records were searched for patients who were homebound , age≥80years and suffering from at least three comorbidities.

**Intervention:** HVP providing comprehensive (acute and routine) interprofessional primary care to these patients.

**Outcomes Measured:** Mean number of Emergency Room (ER) visits and hospital admissions.

**Results:** Thirty seven patients met the study criteria. There was a trend towards a reduction in mean number of ER visits (1.8 vs. 1) and hospital admissions (0.9 vs. 0.6) from pre-to post-intervention respectively. Statistical analysis pending.

**Conclusions:** Preliminary results on the impact of this program showed a decrease in the number of ER visits and hospital admissions. Despite the limited generalizability, the study provides valuable information for decision–makers about the role of HVPs within the larger health-delivery system. Phase 2 of our study will compare the above data to frail elderly patients of our clinic not in the HVP and a random group of frail elderly patients receiving usual care from other clinics in St. John's NL.

## P3 Development of a Novel Digital Engagement Index Using the Scope, Duration and Intensity of Internet Use

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### Background/Research Objective

The population of Canada is aging, and older adults are becoming users of the internet for several reasons (i.e., social interaction, access to health and medical information, and key government services). However, older adults remain a population segment with lower than average levels of internet use—levels that decline sharply with advancing age. As they face changes in health, capability and social circumstances. Previous studies on internet usage tend to view it as dichotomous (i.e., one is either engaged or not engaged). The objective of our research is to measure the level of digital engagement among older adults in Atlantic Canada by developing a Digital Engagement Index (DEI) that is continuous.

### Methodology

A review of epidemiological methods used to develop indices will be conducted. Based on this review, an epidemiological method to develop our DEI will be chosen. The DEI will be developed from responses to questions on demographics, scope, duration and intensity of internet use from the Canadian Internet Use Survey (CIUS).

### Implication for Policy and Practice

The DEI developed for this study will allow comparison and tracking in future studies of digital engagement among older adults. Furthermore, the DEI will be used in our research to generate evidence for stakeholders and academics on the relative contribution (i.e., social, geographical, and political) internet usage by older adults. Moreover, this research is expected to help older adults across Canada to get the required support—from professionals and from each other.

## P4 Dietary intake and eating patterns of elderly people in Newfoundland and Labrador

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**Background:**
Wise food choices and a balanced diet are key elements to a healthy lifestyle and can both slow and improve the aging process. Seniors require fewer calories but more nutrients to promote and protect health, and contribute to independence, self-efficacy and quality of life. However, studies reported dietary conditions in elder people across this country are not encouraging. Moreover, no existing literature has been addressed this issue within NL province to our knowledge. Thus, the objectives of the study were to evaluate dietary intake and eating patterns in a representative population sample of elderly people in NL, and to describe demographic factors that relate to the consumption of specific food items.

**Methods**
*Subjects*: A random sample of 400 participants from the general public in NL was already recruited, and 234 people who are aged over 50 were enrolled in the present study.
*Demographic characteristics:* Demographic characteristics were obtained through telephone interviews using questions regarding age, sex, education attainment, marital status, community size, employment, and smoking habits.
*Dietary assessment:* Most of the tools used to assess nutritional intake in large epidemiological studies were originally developed to be used in young and middle-aged subjects and, therefore, their validity and reliability when employed in older subjects remain uncertain. To obtain a more accurate assessment of the dietary intake in elderly participants, both FFQ and 24-hour dietary recall will be used to collect corresponding information in this project.

## P5. Palliative and end-of-life care for Chinese immigrants and support for family caregivers

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### Background and Purpose

Despite the large Chinese population in Canada, very little research in Canada studied the palliative and end-of-life care provided to them. This research will examine the palliative and end of life care delivered to Chinese immigrants with terminal disease and understand the lived experience of their family caregivers. The research is also aimed to develop culturally appropriate services not only for the patients but also for their family caregivers.

### Study Population

The study will be conducted in Toronto where over 700,000 Chinese immigrants dwell. The inclusion criteria are bereaved Chinese immigrants (>18 years old) who cared for their loved one in Canada in the past 5 years (but less than 6 months). Around 10 participants are expected to join the research.

### Method

This research will use qualitative method. In-depth interview will be conducted using semi-structured, open-ended questions. The interview will last around 1 hour and the questions will focus on the lived experience of the family caregivers, the challenges they and the patients faced and their comments on the current health care service on palliative care. The data will be analyzed with hermeneutic phenomenology.

### Hypothesis

The Chinese immigrants encounter several challenges caused by immigration and their traditional values. It is anticipated that improvements should be made to develop culturally appropriate palliative and end-of-life care for them. Furthermore, culturally competent health professionals and supportive community should be encouraged to assist the family caregivers.

**P6 Can Self-Referencing Explain Age Differences in Eyewitness Memory?**

Jonathan Canning and Kelly L. Warren

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Research has suggested that seniors' eyewitness memory differs from that of younger adults. For example, seniors are thought to have more difficulty picking a suspect out of a lineup than young adults. In the present study, the age of the victim in a staged theft was manipulated to determine whether seniors' event recall differed when they observed a senior as opposed to a younger victim. The hypothesis was that a self-referencing effect would occur, that is, it was thought that seniors would better identify with the senior victim, leading them to watch the theft more closely and as a consequence, to better recall the theft. To assess this, 60 seniors and 61 younger adults were asked to observe a purse theft with either a senior or a young adult victim. After watching the theft, participants completed a distractor task to allow for some passage of time and then they were questioned about what they saw. Results indicated that overall, younger participants supplied more information about the criminal event than did senior participants. However, no significant differences were found in the recall accuracy of the senior participants compared to the younger participants. In partial support of a self-referencing effect, seniors reported more details about the senior victim than they reported about the younger victim. These findings suggest it is important to consider the age of the people observed when evaluating seniors' eyewitness memory as it may partially explain age differences in recall.

## P7 Exploring the Association Between Physical Activity, Heart Disease, and Aspects of the Environment Including Interpersonal and Community Factors.

Devonne Ryan , Memorial University, Graduate Student in Community Health

### Purpose

To explore the association between regular physical activity, heart disease and aspects of the environment including interpersonal and community factors.

### Methods

2011 Survey of Residents of St. John's, a representative telephone survey. We created a novel interpersonal index based on three variables (sense of belonging, satisfaction with family and friends). We then used logistic regression to examine the association.

### Study Population

We used data on adults over 19 years and older, English speaking from St. John's, Newfoundland.

### Findings

After controlling for age and sex, individuals who reported being physically active on a daily basis are more likely to have higher scores on the interpersonal index, were more likely to have a positive impression of outdoor spaces to be active and more likely to report feeling safe and secure in their environment then individuals who report not being physically active. In addition, individuals with heart disease were more likely to rate their active outdoor spaces as negative compared to a participant without heart disease.

### Conclusions

Residents of St. John's rely on interpersonal and community support associated with their physical activity; however, heart disease and these variables may not be as connected. Therefore, strategies to engage residents to be active should include these factors.

**P8 CANCELLED - MOVING WITH THE TIMES Using Technology to Teach Safe Client Handling**

Brenda Oldford MN RN and Christine Castagné MN RN

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Health care workers can effectively reduce their risk for injury when moving or transferring clients by practicing safe client handling (SCH). SCH is defined as the use of evidenced informed decision-making when moving or transferring clients that reduces the risk of musclo-skeletal injury. However, the evidence shows that traditional methods of teaching SCH, such as the use of good body mechanics alone is ineffective in reducing the number of health care worker injuries. Since caregivers play an integral role in creating a culture of safety in our health care system both for themselves and their clients, new methods of handling and moving are needed to ensure healthy workplaces. In response to this need, an innovative SCH educational tool was created through the development of a DVD that was used to enhance Computer Assisted Instruction (CAI). The goal of the DVD was to promote the acquisition and retention of SCH techniques by role-modeling. The goal of CAI was to make SCH information easily accessible and consistent for all who used it. There were positive results from the use of CAI by a group of twenty-two first year nursing students. Although this small convenience sample and the use of self-reporting limits the ability to generalize, these positive results support the continued use of the DVD and CAI, as well as, indicates the need for further research.

**P9 The Psychological Consequences of Undiagnosed Correctable Visual Impairment in Older People: A Critical Review**

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The psychological implications of severe visual impairment or complete vision loss are well known but for undiagnosed correctable visual impairment, these consequences are only beginning to be understood. With the documented high rates of uncorrected refractive error in older people, especially those living in long-term care facilities, it is imperative to investigate the impact of this form of visual impairment on psychological functioning. In this critical review of the literature, the key factors contributing to the high incidence of uncorrected refractive error in older people are presented, including the barriers to accessing adequate optometric care. For older people, the psychological consequences of living with uncorrected refractive error can include increased dependence on caregivers and, therefore, reduced personal agency and autonomy, increased isolation through restricted social and recreational engagement, and increased perceptions of vulnerability due to higher incidence of falls and injury. When correctable visual impairment is identified and treated in older people, improvement in psychological health has been noted, specifically less anxiety, frustration, and symptoms of depression, and increased social interaction. In addition to the emotional and behavioural consequences, the impact of uncorrected refractive error on commonly administered batteries that assess a range of cognitive domains in older people has yet to be fully investigated. Although changes in visual functioning are a normal aspect of aging, the psychological impact of these changes has only started to be explicated. Clinical implications of these findings and directions for future research are presented.

**P10 The Eldercare Study: Evaluation of a Nurse-based Program of Care**

Andrea Pike, MUN; Marshall Godwin, MUN; Farah McCrate, Eastern Health; Sharon Buehler, MUN; Karen Parsons, MUN; Veeresh Gadag, MUN; Wanda Parsons, MUN; Robert Miller, MUN.

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## Background/Purpose

Care of the elderly poses a central challenge to health care systems. Administering care for patients who are very old can take much time and effort by the family physician. Moreover, a physician is not always necessary or the most appropriate healthcare provider to address the many concerns of the elderly. The purpose of this study was to assess the need for a nurse-based management program in order to improve the quality of life of community living elderly people.

## Study Population

236 old elderly individuals aged 80+ living at home or in a level one or two personal care home.

## Methods

Randomized control trial. The intervention tested was a one year, nurse-based program of home delivered care. Patients were assessed by the eldercare nurse for their ability to carry out activities of daily living, medication usage, safety issues, and need for community services. Individual patient goals aimed at improving patient quality of life were set in collaboration with the patient.

## Findings

Results not yet analysed but will be available at the conference.

## Conclusions

We hope this research will allow us to better understand the care needs of the old elderly and how this group uses available resources. It will determine whether a nurse-based program of care can meet the needs of both old elderly patients and the healthcare system.

**P11 CANCELLED - Cytomegalovirus Immune Risk Phenotype and Cognitive Functioning in the Oldest Old**

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While the etiology of cognitive impairment in the elderly has yet to be identified, a role for infectious agents has been suggested. Cytomegalovirus (CMV), a prevalent herpes virus, has been associated with cognitive impairment in the aging population and it is thought that this likely occurs through CMV's modulation of the immune system and related inflammatory processes. In older people, CMV has recently been identified as part of an Immune Risk Phenotype (IRP) that is associated with an elevated mortality risk. We hypothesize that risk for cognitive impairment and decline in older individuals does not simply reflect CMV infection but rather, risk of cognitive impairment increases with progression towards a CMV IRP and this risk is compounded by proinflammatory cytokines. To date, there have been no studies examining the relationship between the CMV IRP and cognitive impairment or decline in the elderly. Therefore, the objectives of the present study are to (1) identify the prevalence of the CMV IRP in a sample of Newfoundland octogenarians, (2) determine whether a CMV IRP or degree of development towards a CMV IRP is associated with cognitive impairment (3) determine whether a CMV IRP or degree of development towards a CMV IRP is associated with cognitive decline and (4) whether the risk for cognitive impairment and/or decline is compounded by a CMV IRP in a setting of increased inflammation. The findings of the present study will add to the body of literature on the role of infectious and inflammatory agents in cognitive impairment in the elderly.

## P12 Analysis of the Influencing Factors Associated with Being Designated Alternate Level of Care

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The term alternate level of care (ALC) was introduced as a way to separate those waiting for another level of care, such as long term care, in an acute care setting. Western Health has been experiencing higher levels of ALC cases and days when compared to other provinces in Canada. Most of the individuals designated ALC are seniors.

Research is currently being conducted on the ALC patient and family population throughout the Western Health Region. The overall goal of this research study is to enhance the clinical effectiveness of the Western Health care delivery system by identifying predictive factors of the ALC population.

The objectives of this study are to:
1. Identify influencing factors of the population who present at hospital with acute illness and become ALC.
2. Identify barriers to returning to previous place of residence as perceived by patients and families.
3. Provide recommendations on risk screening among the population who become ALC.
4. Provide recommendations on early intervention among the population who become ALC.

The poster presentation will present the background and purpose, the methodology, research outcomes, and conclusions. Based on these research findings, recommendations for early intervention strategies will be provided, potentially improving client outcomes. This evidence based approach will assist in the decision making and the development of health policy and administration throughout Newfoundland and Labrador.
This presentation will be of interest to community advocates, seniors, researchers, students, policy makers, and health care providers.

## Keynote Speakers

The conference planning committee is pleased to welcome four esteemed Canadian Researchers as Keynote Speakers for the conference. They are:

### HOWARD BERGMAN MD, FCFP, FRCPC, FCAHS

Howard Bergman MD, FCFP, FRCPC is Chair of the Department of Family Medicine, is Professor of Family Medicine, Medicine, and Oncology and the first Dr. Joseph Kaufmann Professor of Geriatric Medicine at McGill University.

From 2009 to 2011, Dr. Bergman served as Vice-President, Scientific Affairs of the Fonds de la recherche en Santé du Québec (FRSQ), Quebec's health research funding agency. From 1993-2009, he was Director of the Division of Geriatric Medicine at McGill University and of the Jewish General Hospital. In 2001-2002, he was interim Physician-in-Chief and Chief of the Department of Medicine of the Jewish General Hospital. He is an investigator at Solidage: the McGill University/Université de Montréal Research Group on Frailty and Aging as well as at the Bloomfield Centre for Research on Aging at the Lady Davis Institute, Jewish General Hospital. He is Adjunct Professor in the Department of Health Administration, Université de Montréal, Invited Professor in the Faculty of Medicine, Université de Lausanne in Switzerland. He is also adjunct full Professor in the Faculty of Health Sciences, Ben Gurion University of the Negev, Beer-Sheva, Israel where he was recently appointed to the International Academic Review Committee.

Dr. Bergman is a fellow of the College of Family Physicians of Canada and of the Royal College of Physicians and Surgeons of Canada. He is a Fellow of the Canadian Academy of Health Sciences (CAHS). He is a past President of the Canadian Geriatrics Society which awarded him the Ronald Cape Distinguished Service Award, a past Scientific Director of the FRSQ Quebec Network for Research in Aging, a Past President of the Consortium of Canadian Centers for Clinical Cognitive Research (C5R) and a past Chair of the Advisory Board of the Institute of Ageing of the Canadian Institutes of Health Research (CIHR). He is a fellow of the American Geriatrics Society. He is internationally recognized for his research on integrated care, frailty and chronic disease with over 150 publications.

From 1970 to 1990, Dr. Bergman worked as a family physician. In 1968, as a medical student, he was one of the founders of the first community clinic (clinique populaire) in Quebec, precursor of the CLSC's and the Family Medicine Groups. The main thrust of his work in health services research and policy has been the promotion

of primary care in general and primary medical care in particular: PI of the SIPA project based in primary community and medical care; author of the recommendation creating the Family Medicine Groups (GMF) as a member of the Clair Commission; author of the Bergman Report proposing the Quebec Alzheimer Plan with the central role for primary medical care; Member of the Expert Committee of the Canadian Academy of Health Sciences on chronic disease recommending a central role for primary care; as vice-president, scientific affairs of FRSQ promoting research in primary care as a priority in the strategic plan and working together with the university chairs and research directors of family medicine.

In the fields of aging, chronic disease, frailty and health services, Dr. Bergman was from 1999-2009 co founder and co-Director of Solidage: the McGill University/Université de Montréal Research Group on Frailty and Aging. From1999-2002, he was one of the principal investigators in the development and evaluation of a randomized controlled trial - the SIPA model of integrated care for the frail elderly population. As well, Dr. Bergman led a group of Canadian and international investigators in the Canadian Initiative on Frailty and Ageing and leads the International Database Inquiry on Frailty. In the area of Alzheimer's disease and related disorders, Dr. Bergman was co-founder and co director of the Jewish General Hospital/McGill University Memory Clinic and Research Program. He is a past president of the Consortium of Canadian Centres for Clinical Cognitive Research (C5R) and was a member of the Steering Committee of the second (1999) and third (2006) Canadian Consensus Conference on the Diagnosis and Treatment of Dementia

In 2000-2001, Dr. Bergman was a member of the "Clair Commission", an independent Commission set up by the Quebec government to propose reforms to the health care system. His work in that Commission was instrumental in the recommendation on primary care reform and the creation of Family Medicine Groups (GMF). Appointed by the Quebec Minister of Health in 2007, Dr. Bergman tabled in 2009 a proposal for the *Quebec Alzheimer Plan*, from prevention to end of life care, including the research agenda. In 2010, Dr. Bergman was a member of the Canadian Academy of Health Sciences Expert Panel on improving chronic disease outcomes through health system transformation which in 2010 tabled its report: *Transforming Care for Canadians with Chronic Health Conditions: Put People First, Expect the Best and Manage for Results*. In 2010, he chaired the *Initiative for the Development of a Personalized Health Care Strategy for Quebec* bringing together university researchers, industry, health system managers and government. He co-authored the report *Ensuring that Québec capitalizes on the development of Personalized HealthCare; A Business proposal by the Quebec Network for Personalized Healthcare* which led to an initial Quebec government commitment of $20 million to be matched by industry. He co-chaired the interim Steering Committee

Dr. Bergman was recently elected Chair of the Board of Directors of AllerGen, the Canadian Allergy, Genes and Environment Network and is a member of the Board of Directors of the Institute for Research on Public Policy. He is co honorary president of the Société francophone d'oncogériatrie. He serves as consultant to Regional Health Boards and ministries of health in Canada and other countries as well as to industry.

**Neena Chappell, PhD, FRSC**
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Neena L. Chappell, PhD, FRSC, Canada Research Chair in Social Gerontology, Professor of Sociology and Centre on Aging, University of Victoria. She was founding Director of the Centre on Aging at the University of Manitoba (1982 - 1992) and first Director of the Centre on Aging at the University of Victoria (1992 - 2002), developing both into world-class research facilities while ensuring accessibility to the community. For over 30 years, she has been a leader in gerontological research, focusing on issues around aging (caregiving, social support, dementia care, health services, healthy aging, Chinese and China) and health and social policy. Her research can be characterized as partnerships with other researchers and with non-researchers in government and community agencies.

Dr. Chappell promotes relevance and scientific rigour. She conducts large quantitative studies, small in-depth qualitative studies, publishes policy papers, and commentaries on the current societal situation. She argues for recognition of the positive aspects of aging as well as recognition of problems and challenges.

She has written more than 350 papers and authored or co-authored 9 books, edited 2. Her latest, co-authored with Marcus Hollander is forthcoming with Oxford University Press; the focus is an appropriate and cost-effective health care system for an ageing society. Dr. Chappell has lectured internationally and is frequently sought out by committees and the media. She is currently president of the Canadian Association on Gerontology and president of Academy II (Social Sciences) of the Royal Society of Canada.

**Janice M. Keefe, PhD**
Janice M. Keefe, PhD
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Janice Keefe, PhD is a Full Professor in the Department of Family Studies and Gerontology at Mount Saint Vincent University and holds appointments at Dalhousie University's Faculties of Medicine and Graduate Studies and UNB's School of Graduate Studies. In 2002 she was selected as Mount Saint Vincent's first Canada Research Chair in Aging and Caregiving Policy and has received provincial, national and international recognition of her research, most recently from the Canadian Healthcare Association for her contribution to Continuing Care in Canada. In 2006, she was awarded the Lena Isabel Jodrey Chair in Gerontology and appointed Director, Nova Scotia Centre on Aging. Dr. Keefe's research areas are caregiving policy and practice, continuing care policy and rural aging. She currently leads three CIHR-funded research teams - one projecting human resources needed to care for the older Canadians over the next 30 years, another with caregivers of spouses with a cognitive impairment and a third which examines nursing home resident quality of life. She is a Co-Investigator with the Canadian Dementia Knowledge Translation Network (CDKTN) and the Double Duty Nurses study. In the past decade she has published over 60 articles and technical reports. She teaches courses in social policy and aging in the Master of Arts and Undergraduate Program in Family Studies and Gerontology and provides mentorship and supervision to a number of graduate students.

**Anne Martin-Matthews, PhD**
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Anne Martin-Matthews is Professor of Sociology at the University of British Columbia. Born and raised in St. John's, Nfld., she is a graduate of Memorial University and of McMaster University in Ontario. After establishing and leading a Gerontology Research Centre for 15 years at the University of Guelph, Anne moved to UBC in 1998, where she has held positions as Associate Dean and Dean *pro tem* in the Faculty of Arts. She is a member of the Board of Trustees of the Peter Wall Institute for Advanced Studies at UBC.

Anne has recently completed two terms (2004-2011) as the Scientific Director of the Institute of Aging, one of 13 national Institutes of the Canadian Institutes of Health Research (CIHR). Under her leadership, the Institute of Aging led the development of the Canadian Longitudinal Study on Aging (CLSA), launched in 2009. The Institute also developed strategic initiatives on Cognitive Impairment, on Mobility, and on Health Services for an Aging Population.

Professor Martin-Matthews' publications include books on *Aging and Caring at the Intersection of Work and Home Life: Blurring the Boundaries* and on *Widowhood in Later Life*; edited volumes: on methodology, on policy development and on Canadian gerontology in international context; and scientific papers on health and social care (especially home care work), aging and social support, work - family balance, widowhood and on aging in rural environments. She is President of the Research Committee on Aging of the International Sociological Association (2010-2014). A former Editor-in-Chief of the *Canadian Journal on Aging*, she is a an editorial board member for the journal *Ageing and Society* (UK), the *Journal of Aging Studies* (US), the Policy Press (UK) and the *Sage Handbook of Interview Research*.

Anne Martin-Matthews has served on review and scientific advisory committees for provincial and federal agencies, including Health Canada and Veterans Affairs. She is Chair of the International Scientific Advisory Committee for the Toronto Rehabilitation Institute, and is a Member of the National Steering Committee for the

Canadian Patient Safety Institute –Victorian Order of Nurses' Collaborative Project on Patient Safety in Home Care. She is a Fellow of the (U.S.) Gerontological Society of America and of the Canadian Academy of Health Sciences. She holds a Distinguished Alumnus Award from McMaster University and an Honorary Degree in Civil Law from Newcastle University (UK).

# A Newfoundland and Labrador Centre on Aging: Background to Symposium

**Introduction.** Statistics Canada has recently projected that by 2031, NL will have the highest proportion of seniors in Canada[1]. The University of Manitoba's Centre on Aging lists 18 Canadian research centres on aging (www.umanitoba.ca/centres/aging/links/canada/659.htm). *The only province without a centre dedicated to the study of aging is Newfoundland and Labrador (NL)*[2]. The establishment of a provincial Centre on Aging would be an important development given the demographics and the unique circumstances of the province and its people. A provincial Centre on Aging would facilitate aging-related research, education, and community engagement thereby assisting the government of NL in achieving the goals of its Healthy Aging Policy Framework (2007).

There has been a long history of efforts to establish a provincial Centre on Aging. In the 1980s there was a Gerontology Research Unit in the Psychology Department of Memorial University (St. John's campus). The Seniors Resource Centre of NL grew out of the Gerontology Unit. In 1999, a community forum was held to discuss a centre on aging at Memorial and a working group was created. In 2005, a meeting was held to discuss a centre on aging with representatives from the Seniors Resource Centre of NL, the provincial government, Eastern Health, and Memorial University. A subcommittee was formed to develop terms of reference for a proposed Research Centre on Aging and Seniors. None of these efforts resulted in the establishment of a Centre on Aging.

The most recent initiative originated in Corner Brook. Dr. Leslie Cake (2008) reviewed the activities of existing Canadian Centres and assessed the feasibility and desirability of establishing a Centre on Aging at the Grenfell Campus of Memorial University. The Grenfell study looked at operational feasibility via extensive consultations with groups and individuals at the Grenfell and St. John's campuses of Memorial, the Western Regional School of Nursing, and Western Health. In support of feasibility, approximately 50 academics and health care professionals from these institutions and representatives of community groups expressed interest in a provincial Centre on Aging. The desirability of establishing a centre was assessed positively in terms of consistency with several of the priority directions and goals of the Healthy Aging Policy Framework, and consistency with the strategic plans of the Grenfell and St. John's campuses of Memorial University.

In 2009, some of the people with aging-related research interests identified during the Grenfell study formed a research team with province-wide representation that included academics from the Grenfell and St. John's campuses of Memorial, members of the Research Affinity Group on Aging of the NL Centre for Applied Health Research (NLCAHR), professionals from two provincial health authorities (Eastern and Western Health), and community collaborators (Seniors Resource

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[1] Statistics Canada (2010). *Population Projections for Canada, Provinces and Territories: 2005-2031*. Retrieved from http://www.statcan.gc.ca/pub/91-520-x/91-520-x2010001-eng.pdf, July 16, 2011.

[2]The NL Centre for Applied Health Research (NLCAHR) supports research on aging through the Healthy Aging Research Program funded by the provincial government. The Centre also supports a Research Affinity Group on Aging. Although NLCAHR is not a Centre devoted solely to the study of aging, synergy and cooperation between NLCAHR and a Centre on Aging will be critical.

Centre of NL, the Corner Brook Seniors Wellness Committee, the Labrador Friendship Centre).[3] With funding from the Healthy Aging Research Program of the NLCAHR, the team conducted a study to build an evidence-based framework for a NL Centre on Aging.

**Research Goals and Methods.** One goal of the study was to gather information concerning the establishment and activities of a representative sample of Canadian Centres on Aging through site visits and interviews with key personnel. A second goal was to use the gathered information to guide the establishment, structure, and activities of a proposed NL Centre on Aging.

Ten Canadian Centres on Aging located in seven Canadian provinces were visited. Eight of the Centres were located at universities and two in health-care institutions. Semi-structured interviews were conducted with 38 key personnel including directors, an associate director, coordinators, research affiliates, and individuals from the community.

**Key Findings.** Most Centres were established by a small group of champions. Initially, Centres tended to be small; however, over time, most expanded considerably. For university Centres, sources of establishment funding included the university, the provincial government, federal government grants, private corporations, foundations, and endowments/donations.

Centres' mandates generally included research, education, and community outreach. Interdisciplinary research was focused on older adults and covered a wide variety of topics. All Centres were involved in some form of student education. Six Centres were located at, or affiliated with, universities that offered degree programs in aging. Most Centres held speakers' series and hosted academic conferences. Community outreach activities included public lectures, open houses, workshops, newsletters, and websites. Two Centres offer awards for older adults. Two Centres have offered direct services to older adults. Most Centres will advise community groups and collaborate with the community on research projects.

All Centres had a director who tended to be a high-profile researcher successful in securing research grants and attracting research affiliates to the Centre. At some Centres, other administrative positions included an associate director or a coordinator. Centres varied considerably in numbers of support staff. All Centres had research affiliates and three Centres had core faculty/ researchers in residence. Centres typically had partners from other academic institutions, government, the health care sector, and the community.

At university Centres, operational funding for the salaries of core staff was usually provided by the university. Centres and their research affiliates obtained research funding from a variety of sources including the federal and provincial governments, charitable organizations, and foundations. Some Centres provided seed funding to research affiliates.

A more detailed description of findings may be found at http://www.nlcahr.mun.ca/profiles/lesliecake_profile.php

[3]This research team are also members of a visioning group for the establishment of a provincial Centre on Aging. Other members include representatives from the provincial government, health authorities and community groups across the province.

**Recommendations.** Based on the information gathered and analysis of that information by the research team, a set of recommendations related to the establishment and operation of a NL Centre are offered:

1. A Newfoundland and Labrador Centre on Aging should be established.
2. The Centre should be located at Memorial University.
3. The Centre should have core staffing which includes a director and a coordinator.
4. The Centre should be supported by core operational funding.
5. The Centre's mandate should include excellence in research, education, and community engagement.
6. The Centre should be inclusive and should adopt a broad research focus
7. The Centre should have community engagement as a key priority.
8. The Centre should strive to attract and support research affiliates.
9. The Centre should engage multiple partners in its activities.
10. The Centre should implement a representative governance model.

The rationales for these recommendations will be offered and discussed in the first panel of Day 2.