Research on Aging in Newfoundland and Labrador

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Contents

About NLCAHR .............................................................................................................................................. 6
A Compendium of Research on Aging in Newfoundland and Labrador ....................................................... 6

Aging Research/Health Policy Development .................................................................................................. 7
Ageism and Health: Towards a Policy Framework for Healthy Aging (2016) ................................................. 7
Data inventory for healthy aging research in Newfoundland and Labrador (2013) ........................................ 7
Building an Evidence-Based Framework for the Development of a Newfoundland and Labrador Centre on Aging (2011) ........................................................................................................................................ 9

The Aging Process ....................................................................................................................................... 11
Descriptive analysis of the health and health services utilization of very elderly Newfoundlanders (2015-ongoing) .................................................................................................................................................. 11
Metabolomics of aging – identification of metabolic biomarkers of aging (2013) ........................................ 11
Assessing dietary intake and adequacy of elderly residents of Newfoundland – a pilot study (2012) ...... 12
Unlocking the Mysteries of Aging: Canadian Longitudinal Study on Aging (CLSA) in Newfoundland and Labrador (2012) ........................................................................................................................................ 13
Nutritional Status and Immune Function in an Elderly Population (1991) .................................................... 13

Chronic Disease & Chronic Pain .................................................................................................................... 15
Effectiveness of a pharmacist-driven intervention in COPD (EPIC): A pragmatic cluster randomized controlled trial (January 2016 – December 2018) .................................................................................................................................................. 15
Predictors of chronic cerebrospinal venous insufficiency procedure use among older people with multiple sclerosis: a national case–control study (2015) ......................................................................................... 15
Developing and testing a dialect-sensitive and culturally-appropriate diabetes educational tool for older adults of Rural Newfoundland and Labrador (2015) ................................................................................................. 16
Chronic Pain and Aging in Newfoundland and Labrador: A Quality of Life and Healthcare Utilization Profile (2015) ................................................................................................................................................. 17
What is it Like for Aging Nurses to Live and Work with Chronic Disease in the Province of Newfoundland and Labrador: A Phenomenological Study (2013) ................................................................................................. 17
Sustaining IT Use by Older People to Promote Autonomy and Independence: Newfoundland and Labrador Cohort (2013) ................................................................................................................................................. 18
Health, Lifestyle and Aging with Multiple Sclerosis: Building an Evidence-Based Self-Management Program (2012) ................................................................................................................................................. 19
From the Ground Up: Alliances to Address Chronic Pain in the Community (2012) .................................... 20
Exploring the Feasibility and Process of Establishing an Online Spatio-Temporal Information System or Age-Related Chronic Disease in NL (2011) ................................................................................................................................ 20

Cognition, Vision, Hearing ................................................................................................................. 22

Tubedown in Vision Loss During Aging and Age-Related Neovascular Retinopathies (2015) ... 22
Do visual enhancements of healthcare instructions improve learning and memory performance in older adults? (2015) ................................................................................................................. 23
Cytomegalovirus Immune Risk Phenotype and Cognitive Functioning in the Oldest Old (2012) .... 23
Effects of Perceptually Based Noise and Distortion on Memory in Older Adults (2011) .............. 24
Episodic memory binding as a preclinical diagnostic tool for mild cognitive impairment and predicting conversion to Alzheimer’s disease (2011) ................................................................. 25
Healthy aging with a chronic neurological disorder - A profile of community- based programs (2011) ... 26
Determining the Needs of Community Dwelling Older Adults with Age-Associated Memory Loss and Mild Cognitive Impairment in Newfoundland (2009) ........................................................................... 27
Cognition Over the Lifespan (2003) ............................................................................................... 27

Care in the Community ....................................................................................................................... 29

Palliative/End-of-Life Care in Rural Settings: Support to Informal Providers of Care (2015- ongoing) ... 29
Supporting the Independence of Persons with Dementia (2015 CHRSP Study) ........................................... 30
Looking Back: An examination of the impact of social isolation on seniors’ health in Newfoundland and Labrador (2014) ...................................................................................................................... 31
Community-Based Service Models for Seniors (2013 CHRSP Study) ................................................. 31
Grandmothers on the Move: Older Women Immigrants and Healthy Aging (2013) ......................... 32
Telegerontology: a novel approach to optimize health and safety among people with dementia in Newfoundland and Labrador (2013) ............................................................................................................... 33
Creating Productive and Healthy Environments for Older Workers (2012) ................................................. 34
Home Share NL (2012) ................................................................................................................. 35
Job Satisfaction Among Older Workers in ‘Dead-End’ Jobs (2011) .................................................... 35
The ElderCare Project: Primary Health Care for Community Living Old Elderly (2011) .................... 36
Work Schedules Among ‘Older’ Workers (2011) .................................................................................. 37
Working Late: Strategies to Enhance Productive and Healthy Environments for the Older Workforce - the Canadian Context (2010) .................................................................................................................. 38
Development of an Age-Friendly Communities Research Team (2009) ............................................ 39
The Effectiveness of the Edmonton Symptom Assessment System (ESAS) in Monitoring Palliative Care Patients in the Community (2008) ........................................................................................................ 40
## Care in Institutional Settings

- Reducing Antipsychotic Medication Use in LTC Collaborative (2015) .......................................................... 42
- Impact of relocation from home or institution to assisted living on adults with mild to moderate dementia (2014) .................................................................................................................. 43
- Culturally competent (appropriate) health and long-term care services for older immigrants in small urban centers of Newfoundland (2013). .................................................................................................... 45
- Transitioning to a New Nursing Home: One Organization’s Experience (2013) .......................................................... 45
- Age-Friendly Acute Care (2012 CHRSP Study) ........................................................................................................ 45
- From institution to home: Family Perspectives on a Unique Relocation Process (2011) .................................................. 47
- Palliative Care Needs of People with End Stage Renal Disease in Newfoundland and Labrador (2011) .................. 47
- Eastern Health Adult Rehabilitation Gaps and Needs Assessment (2010) ................................................................. 48
- Does a Dementia Unit Reduce Polypharmacy in a Veterans’ Pavilion? (2010) .............................................................. 48
- Palliative and End of Life Care in Newfoundland and Labrador’s deaf community (2009) ........................................ 49

## Mobility & Aging

- Watch your step: Staying active and on your feet as you age (2014) ................................................................. 50
- Fall Prevention for Seniors in Institutional Healthcare Settings (2014 CHRSP Study) ..................................... 50
- Remote Fall Detection for Seniors (2013) ................................................................................................................ 52
- Fall prevention in seniors in the greater St. John’s area: a qualitative and quantitative examination of a fall prevention program. (2012) ........................................................................................................... 52
- Healthy Aging in Newfoundland and Labrador: An Epidemiological Study to Enhance Mobility and Participation in Society (2008) .................................................................................................................. 53
- Examining Gender Differences in Quality of Life and Health Outcomes after hip fracture in elderly Canadians (2005) .............................................................................................................................. 54

## Doctoral Level Studies on Aging

- Using long-term aerobic exercise to modulate corticospinal excitability and intracortical networks in sedentary older adults (2015) ........................................................................................................... 57
- Age-Friendly Community Capacity Building in Newfoundland and Labrador (2014) .............................................. 57
- Health Promotion through the Arts: Exploring New Methodologies in Research; Creative-Arts Workshops for Caregivers of Partners with Dementia (2013) ................................................................. 58
- How age-related hearing loss impacts memory for medical adherence in the older adult (2012) ...................... 59
Balance Control in Elderly Obese Individuals (2010) .............................................................................. 60
Factors Associated with Selecting Gerontological Social Work as a Career (2010) ................................. 61
Muscle fatigue resistance in old and very old women (2009) ..................................................................... 63
Mental Status in the Hospitalized Elderly (1992) ....................................................................................... 63

APPENDIX A: NL-HARP Funding Recipients .......................................................................................... 65

APPENDIX B: How to submit your research/corrections for this compendium ....................................... 70
About NLCAHR
The Newfoundland and Labrador Centre for Applied Health Research, established in 1999, contributes to the effectiveness of health and community services in Newfoundland and Labrador and to the physical, social, and psychological wellbeing of its population. NLCAHR accomplishes this mandate by building capacity in applied health research, supporting high-quality research, and fostering the effective use of research evidence by decision makers and policy makers in the provincial healthcare system.

A Compendium of Research on Aging in Newfoundland and Labrador
In June 2016, the Newfoundland and Labrador Centre for Applied Health Research offered to assist the conveners of the Research Exchange Group on Aging in the collection of some research summaries for applied health research related to aging. The compilation was intended for dissemination at the 2016 conference Our Future is Aging: Current Research on Knowledge, Practice and Policy hosted by the Nova Scotia Centre on Aging at Mount Saint Vincent University.

To create this document, we sought summaries of applied health research related to healthy aging and seniors that had been undertaken in Newfoundland and Labrador. We started off by looking at recipients of funding through the Newfoundland and Labrador Healthy Aging Research Program (NL-HARP)¹.

We then searched for other sources of research information to supplement the listing. Because the sources for our information may contain out-of-date or inaccurate summaries, we have listed the source of information below each citation and we ask researchers to submit corrections as necessary:

- Successful funding applications for three awards programs administered by NLCAHR: NL-HARP, the NLCAHR Awards Program and the Enhancing Healthcare in NL Fund.
- Studies on seniors and aging conducted by the Contextualized Health Research Synthesis Program (CHRSP) of NLCAHR;
- Studies uncovered by searching on Yaffle.ca (an online compendium of research in Newfoundland and Labrador) using keywords related to aging and health;
- Studies we located in Memorial University Queen Elizabeth II Library’s research repository with a similar search strategy; and
- Researcher-submitted information resulting from an email survey to members of the Research Exchange Group on Aging.

Our search of digital databases uncovered a considerable number of studies carried out at the Master’s level by students in a variety of disciplines at Memorial University. We have listed only those Master’s theses funded by NL-HARP in Appendix A. Further, because our search methodology was by no means exhaustive, we consider this to be a dynamic document—we welcome further contributions from researchers in Newfoundland and Labrador whose work focuses on seniors and healthy aging. Contact details for submissions are included in Appendix B.

¹ NL-HARP was established in 2009 as an annual research funding opportunity administered through NLCAHR. The funds are provided by the Government of NL to support research on healthy aging in the province that aligns with the Provincial Healthy Aging Policy Framework (PHAPF), which uses Health Canada’s definition of healthy aging: “Aging is a lifelong process of optimizing opportunities for improving and preserving health and physical, social and mental wellness, independence, quality of life and enhancing successful life course transitions.”
Ageism and Health: Towards a Policy Framework for Healthy Aging (2016)
Evan Simpson, Honorary Research Professor Memorial University of Newfoundland
esimpson@mun.ca

SUMMARY
The goal of this project is a framework for better documenting and understanding how attitudes toward aging can affect mature well-being. Specific objectives include: 1) Providing conceptual clarity on key concepts that commonly appear in policy documents related to ageing; 2) Displaying the importance of disambiguating criteria of social support that are often conflated; 3) Contributing to sound criteria of development for programs designed to promote healthy aging.

Many studies have identified clear associations between health and socioeconomic status. For example, The World Health Organization’s 2008 report, “Closing the Gap,” showed that low incomes, poor education, and bad housing undermine health and life expectancy. Reports of this kind commonly stress race, ethnicity and other socioeconomic factors but give less attention to attitudes towards aging as another of these social determinants. A consequence of this inattention is that unrecognized ambiguities interfere with formulation of healthy-aging policy frameworks. Correcting for this oversight will help avoid confused or unfocussed programs by distinguishing such different concepts as human worth, respect for persons, love, admiration, and individual merit.

The absence of a respectful culture for older citizens constitutes ageism, which in turn interferes with healthy aging. However, effectively evaluating this proposition depends upon conceptual clarity about respect on the one hand, feelings of love and friendship on the other. All of these attitudes are conducive to well-being, but respect works through formal reciprocity whereas love and friendship work through perceptions of others who are accepted for their unique selves. The difference is complicated by distinctions between human worth and respect for persons on the one hand and the individual merit that warrants admiration on the other, in contrast to loving a person for herself regardless of merit. The importance of all these psychological phenomena explains their relationship to human health, but they should be carefully discriminated when the objective is identifying the forms of social support that contribute most significantly to healthy aging and accurately guiding the formulation of health policy.

SOURCE: Researcher submission

Data inventory for healthy aging research in Newfoundland and Labrador (2013)
John Knight, NL Centre for Health Information

FUNDING
NL-HARP Data Inventory Reports Grant

SUMMARY
The objective of this project is to create a data inventory report of data related to healthy aging in Newfoundland and Labrador (NL), which will entail the following:
1. To identify the data needs of stakeholders
2. To identify available data holdings
3. To systematically assess/report on quality of the identified data holdings
4. To identify gaps and limitations that exist in the identified data holdings
5. To identify potential strategies to acquire missing information
6. To produce a data inventory report and make it available to stakeholders

RATIONALE/CURRENT KNOWLEDGE

"Aging is a lifelong process of optimizing opportunities for improving and preserving health and physical, social and mental wellness, independence, quality of life and enhancing successful life course transitions" (Health Canada, 2002). In Canada, the proportion of the population over the age of 65 is growing and is expected to increase. A demographic shift is occurring in every province in Canada. However, the shift appears to be occurring at a faster rate in Newfoundland and Labrador. In 2011, NL had the highest median age in Canada (43.8) (Statistics Canada, 2011), which is expected to increase to 49 years by 2021 (Department of Finance, 2006). The growing aged population is expected to place increased burden on the health care system. Thus monitoring and research of socio-demographic characteristics, health status and health care services utilization of the population is important for evidence-informed policy development and health care planning.

According to the World Health Organization, a major strategy towards better health policy is to enable open access to both published and unpublished health information (WHO, 2004). Through research and information development initiatives, policy-makers can use secondary sources of data to monitor population change and needs. Health information should be easily accessible so that policy-makers can make well-informed decisions (WHO, 2004).

Knowledge translation and uptake of research by policy-makers continues to be a challenge across Canada. Kiefer et al. (2005) conducted a literature review and interviews to identify priority areas for policy makers in population and public health research and knowledge transfer. Some noteworthy recommendations were:

- Researchers and end users should be better connected;
- There is a need for more involvement of policy-makers in knowledge generation;
- There should be some agreement around a standard of evidence and methodologies;
- Better connection to potential research data sources (Kiefer et al., 2005).

Secondary data holdings contain a vast amount of information and can be a valuable resource for health care planning, policy development and implementation, and applied health research needed to understand healthy aging. However, a lack of knowledge about the data among potential data users can impede their use. Therefore, developing an inventory of aging related data and the assessment of quality of such data holdings, as well as the transfer of this knowledge to potential users, will facilitate information development and research that can be used to support future program and policy planning as it relates to healthy aging.

SOURCE: NL-HARP Funding Application
Building an Evidence-Based Framework for the Development of a Newfoundland and Labrador Centre on Aging (2011)
Leslie Cake, Sharon Buehler, Kelli O’Brien, Michelle Ploughman, Carla Wells, Gail Wideman

FUNDING
NL-HARP Seed Grant

SUMMARY
Newfoundland and Labrador (NL) has one of the highest proportions (13.9%) of seniors of any province and Statistics Canada has projected that by 2031, NL will have the highest proportion of older adults in Canada.

There are approximately 18 Canadian research centres involved in the study of aging. The only province without a centre dedicated to the study of aging is NL\(^2\). The establishment of a NL Centre on Aging would be an important development given the demographics and the unique circumstances of the province and its people. A NL Centre on Aging would facilitate aging-related research and education, thereby assisting the government of NL in achieving the goals of the Healthy Aging Policy Framework. The present document summarizes a qualitative descriptive investigation funded by the Healthy Aging Research Program (HARP) of the NL Centre for Applied Health Research (NLCAHR) and by the Grenfell Campus of Memorial University.

Research goals and method
The general goals of this study were:

- 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 and,
- 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 are located at universities and two in health-care institutions. Interviews were conducted with 38 key personnel including directors, an associate director, coordinators, research affiliates, and individuals from the community.

Findings
Most Centres were established by a small group of champions. Initially, Centres tended to be small; however, over time, they expanded considerably.

Centres’ mandates generally include research, education, and community outreach/engagement. Interdisciplinary research focuses on older adults and covers a wide variety of topics. Six Centres are located at, or affiliated with, universities that offer degree programs in aging. Most Centres hold

\(^2\)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 Exchange 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.
speakers’ series and host academic conferences. Community outreach activities include public lectures, open houses, workshops, newsletters, and websites. Two Centres offer awards for older adults. Most Centres will advise community groups and collaborate with the community on research projects.

**Conclusions**
Centres on Aging create new knowledge about aging through research. Centres also support health policy decision-making and practice by governments and health authorities, and partner with community organizations to provide education and outreach activities for older adults. The government of NL has clearly recognized the importance of such activities including aging research and education in the Healthy Aging Policy Framework.

Over the past 20 years, community, academic and provincial government groups have agreed that a Newfoundland and Labrador Centre on Aging would provide the leadership to address the challenges of the province’s aging population. The current study provides a sound framework to guide Memorial University and the Government of Newfoundland and Labrador in the establishment and activities of a Newfoundland and Labrador Centre on Aging.

**Recommendations**
Based on the information gathered and analysis of that information by the research team, a set of 10 recommendations related to the establishment and operation of a NL Centre on Aging are offered. The major recommendation is to establish a NL Centre on Aging at Memorial University with a permanent director and staff supported by core funding. The Centre’s mandate should include excellence in research, education, and community engagement.


*SOURCE: Researcher-submitted entry*
The Aging Process

Descriptive analysis of the health and health services utilization of very elderly Newfoundlanders (2015-ongoing)
Marshall Godwin, Andrea Pike, John Knight, Kris Aubrey, Shabnam Asghari, Gary Tarrant

FUNDING
NL-HARP Project Grant

SUMMARY
The very elderly (aged 80 and over) are the fastest growing subset of the population. While this group is often thought of as frail and unable to care for themselves, their health status and living arrangements are quite varied. In fact, the majority of the very elderly live at home, in the community as opposed to nursing or personal care homes. Nevertheless, population aging will increase strain on health care services for seniors. As such, it is increasingly important for us to have in place policies and programs responsive to the needs of this group. At this time, however, we don’t have clear picture of the health and health service needs of the very elderly. The purpose of this study is to develop a profile of the very elderly in this province that highlights a variety of key health (e.g., health conditions, medication use) and healthcare utilization (e.g., family physician visits, hospitalizations) indicators. Using key characteristics such as sex, age, and geography we will also describe subgroups of the population which may tell us about any important differences that could further our understanding of the health and service needs of the very elderly in this province. We will analyze existing sources of medical administrative and clinical data in order to develop our profile. Care delivery and health policy will not be effective unless it is informed by up-to date and relevant information. This information will also help us identify gaps and/or redundancies in services and programming.

SOURCE: NL-HARP Funding Application

Metabolomics of aging – identification of metabolic biomarkers of aging (2013)
Dr. Guangju Zhai, Faculty of Medicine (Genetics)

SUMMARY
Aging populations pose a great challenge for health care. Understanding the process of aging is of tremendous importance for a variety of reasons, including the management of health, diseases, and prolonged life span. Chronological age alone does not predict a person’s susceptibility to the consequences of aging, as a vast number of effects such as genetics, stress, dietary choices, environmental factors, daily activities, and medication affect the so-called biological age. A large number of parameters have been proposed to assess the biological age of an individual, but so far the quest for biomarkers of aging has met with only minimal success with little or no ability to make useful statements about individuals. Metabolic profiling provides a new approach and opportunity to explore the metabolic effects of many conditions in complex biological systems. Metabolites present in the blood provide information on all tissues that deliver metabolites to the blood and/or obtain metabolites from it.
The overall aim of the project is to identify metabolic biomarkers of aging, test their predictive ability for multiple age-related physiological domains, and examine the effects of age-related diseases on them. We will map the newly identified metabolic biomarkers of aging to Kyoto Encyclopedia of Genes and Genomes (KEGG) metabolic pathway and reconstruct a metabolic network of aging.

Research methodology: A total of 6000 Caucasian females with age of 40 years old or above from TwinsUK cohort will be included in the study. 2000 subjects are healthy individuals and 4000 with at least one common age-related disease including hypertension, Myocardial infarction (MI) or angina, stroke, Chronic obstructive pulmonary disease (COPD), diabetes, cataract, osteoporosis, and osteoarthritis. 295 serum metabolites will be measured on blood samples by chromatography/tandem mass spectrometry by a commercial company -Metabolon. The age-related metabolites will be identified, their predictive ability for multiple age-related physiological domains will be tested, and the effect of age-related diseases on them will be examined. Genome-wide association test will be performed for the age-related metabolites with high heritability to identify potential ageing-related genes. The newly identified age-related metabolites will be mapped to KEGG metabolic pathways and a metabolic network of ageing will be reconstructed.

Significance: The study will help with a better understanding of aging process in human and provide invaluable tools for anti-aging interventions and improve the quality of life of all Canadians. The project is directly relevant to the Provincial Healthy Aging Policy Framework and complement the ongoing project – Canadian Longitudinal Study on Aging.

SOURCE: NL-HARP Funding Application

Assessing dietary intake and adequacy of elderly residents of Newfoundland – a pilot study (2012)
Dr. Piezhong (Peter) Wang, Dr. Barbara Roboethan, Dr. Yanqing Yi, Dr. Elizabeth Dicks

FUNDING
NL-HARP Seed Grant

SUMMARY
The goal of the proposed work is to test necessary operational aspects of a possible larger population based study aimed at examining dietary intake and its effects on health status in the elderly residents Newfoundland (NL) residents. The pilot study will largely mimic a larger population based study planned for the future. The pilot study will be conducted in 100 selected eligible subjects.

If a large population based study is shown to be feasible, its primary objectives will be: i) To assess the overall situation of dietary intake and adequacy in the elderly NL residents; ii) To determine if urban-rural differences exist in dietary intake; iii) To examine how dietary factors affect the health of NL elderly residents.

Specific objectives of this pilot study are:

1) to develop a research proposal that aims to examine dietary intake and health in the elderly Newfoundland residents;
2) to test the survey instruments and sampling scheme that will be implemented in a future population based study;
3) to provide preliminary descriptive results on dietary intake and adequacy of the elderly Newfoundland residents that will help generate further research hypotheses.

SOURCE: NL-HARP Funding Application

Unlocking the Mysteries of Aging: Canadian Longitudinal Study on Aging (CLSA) in Newfoundland and Labrador (2012)
Dr. Gerry Mugford, Faculty of Medicine, Memorial University

COLLABORATORS AND STUDENTS
Dr. Patrick Parfrey, Dr. Anne Sclater, Dr. Marshall Godwin, Dr. Proton Rahman, Dr. Don MacDonald, and Elizabeth Hatfield, Faculty of Medicine, Memorial University

FUNDING RESOURCES
Canadian Longitudinal Study on Aging (CLSA)

SUMMARY
The Canadian Longitudinal Study on Aging (CLSA) is a new, federally funded study that will increase the understanding of common health problems affecting seniors. About $1.5 million of the project funding will come to Newfoundland and Labrador initially, with additional funding as the project develops. Researchers will collect information on the changing biological, medical, psychological, social and economic aspects of the participants’ lives. The design and extended follow-up of the CLSA will enable the study team to look at more than a brief snapshot of the adult Canadian population and to critically examine health transitions and changes over a longer-term period. Statistics Canada has committed important and invaluable in-kind contributions to the design of the survey and the recruitment of participants. Participants will be randomly selected, studied at three-year intervals, and will be followed for at least twenty years.

The Newfoundland study will enroll a total of 5,000 participants between the ages of 45 to 85 years to study the determinants of healthy aging. These determinants will include biological, psychosocial and economic factors. In addition to starting at mid-life, the CLSA is the first study of its kind to collect social and economic retirement factors, as well as clinical and biological measures.

SOURCE: Yaffle.ca

Nutritional Status and Immune Function in an Elderly Population (1991)
Dr. Barbara V. Roebothan, Community Health and Humanities, Faculty of Medicine and Department of Biochemistry, Memorial University

FUNDING RESOURCES
Ross Laboratories; Health and Welfare Canada

SUMMARY
Nutrition and immunology are integrally related. A depressed immune system and a poor nutritional status are common characteristics of elderly populations.
The purpose of the study was to improve the immune response of nutritionally deficient seniors by improving their nutritional status. 205 healthy elderly volunteers were assessed for their nutritional status in regards to protein/calories, zinc, iron, folacin and vitamin B-12. The assessment was based on anthropometric, biochemical, haematologic and clinical examinations. Dietary intake was also recorded.

Sixty-six of these individuals showed signs of malnutrition, and deficiencies of all nutrients monitored were found in the subject group. Malnutrition did not differ with sex or living accommodation but did increase significantly with age. Forty-two of the nutritionally deficient were administered the appropriate nutritional supplement for six consecutive months. Thirty-four showed an improvement in nutritional status, accompanied by a significant rise in functional T cells and an improvement in immunological response. The findings suggest that nutrition can have a positive and significant effect on immune function.

**SOURCE: Yaffle.ca**
Chronic Disease & Chronic Pain

Effectiveness of a pharmacist-driven intervention in COPD (EPIC): A pragmatic cluster randomized controlled trial (January 2016 – December 2018)

Drs. Erin Davis, John Hawboldt, JM Gamble, Carlo Marra, Jamie Farrell, Joe Lockyer, Mark Fitzgerald, Waseem Abu-Ashour

FUNDING:
Health Research Foundation

SUMMARY
Background: Patients with chronic obstructive pulmonary disease (COPD) are often non-adherent with medications and have poor inhaler technique. Community pharmacists can help improve health related quality of life and overall outcomes in patients with COPD. We aim to measure the effectiveness of a systematic, pharmacist-driven intervention on patients with diagnosed COPD. Methods/Design: This pragmatic cluster randomized controlled trial is designed to determine the effectiveness of a multifactorial, pharmacist-led intervention on medication adherence, inhaler technique, health-related quality of life, health care resource utilization including COPD exacerbations, and use of medications. Participating pharmacies in Newfoundland and Labrador (NL), Canada will be randomly assigned to either the intervention or control group. The intervention group will deliver an enhanced form of care that emphasizes COPD management. The control group will provide usual care and a COPD education pamphlet. Included patients will be ≥40 years of age, have a physician confirmed diagnosis of COPD, and be able to answer questionnaires in English. The primary outcome is the between group difference in the change from baseline in medication adherence using the medication possession ratio (MPR) and the Morisky Medication Adherence Scale (MMAS-8). Secondary outcomes are quality of life as measured by the St. George's Respiratory Questionnaire, medication inhalation technique using a pharmacist-scored checklist, healthcare resource utilization and antibiotic and oral corticosteroid use for COPD exacerbations. Differences between groups will be analyzed at the individual patient level while controlling for clustering effect. Discussion: A pharmacist-led COPD intervention has the potential to improve patient medication adherence thus increasing quality of life, possibly decreasing pulmonary exacerbations and reducing utilization of acute health care resources. Methods and results taken from this study could be used to enhance the delivery of COPD care by community pharmacists in a real-world setting. This would serve to enhance COPD population health and quality of life. Trial Registration: International Standard Randomized Controlled Trial Number (ISRCTN) ISRCTN78138190

SOURCE: Researcher submission


Michelle Ploughman, Olivia J. Manning, Serge Beaulieu, Chelsea Harris, Stephen Hogan, Nancy Mayo, John D. Fisk, A. Dessa Sadovnick, Paul O'Connor, Sarah A. Morrow, Luanne M. Metz, Penelope Smyth, Penelope Allerdice, Susan Scott, Ruth Anne Marrie, Mark Stefanelli, and Marshall Godwin

Official URL: http://dx.doi.org/10.1186/s12913-015-0835-y
SUMMARY
Following the initial reports of Chronic Cerebrospinal Venous Insufficiency (CCSVI) and the purported curative potential of venoplasty, (coined the ‘liberation’ procedure) Canadians living with multiple sclerosis (MS) began to travel abroad to receive the unregulated procedure, often placing them at odds with their health providers.

The purpose of this study was to determine the factors influencing older MS patients’ decision to undergo the procedure in order to develop more specific and targeted health information.

We performed secondary analysis of data collected as part of the ‘Canadian Survey of Health Lifestyle and Aging with MS’ from people over the age of 55 years with MS symptoms for 20 or more years. The survey consisted of self-reported information on impairments, disability, participation, demographics, personal and environmental factors. In order to compare respondents who underwent the procedure to those who did not and to develop a predictive model, we created a comparison group using a case–control algorithm, controlling for age, gender and education, and matching procedure cases to controls 1:3. We used multivariate stepwise least likelihood regression of ‘a priori’ variables to determine predictive factors.

The prevalence of the ‘liberation’ procedure in our sample was 12.8% (95/743), substantially lower than reported in previous studies of complementary/alternative treatments in MS. The predictive model contained five factors; living alone (Odds ratio 0.24, 95%CI 0.09-0.63), diagnosis of anxiety (Odds ratio 0.29, 95%CI 0.10-0.84), rating of neurologist’s helpfulness (Odds ratio 0.56, 95%CI 0.44 - 0.71), Body Mass Index (Odds ratio 0.93, 95%CI, 0.89 - 0.98) and perceived physical impact of MS (Odds ratio 1.02, 95%CI 1.01 - 1.04). Conclusions Predictive factors differed from previous studies of complementary/alternative treatment use likely due to both the invasiveness of the procedure and the advanced age of our study cohort.

Our findings suggest that health professionals should target information on the risks and benefits of unregulated procedures to those patients who feel dissatisfied with their neurologist and they should include family members in discussions since they may be providing the logistical support to travel abroad and undergo the ‘liberation’ procedure. Our findings may be applicable to others with chronic disabling conditions who contemplate the user-pay unregulated invasive procedures available to them.

SOURCE: Memorial University Research Repository

Developing and testing a dialect-sensitive and culturally-appropriate diabetes educational tool for older adults of Rural Newfoundland and Labrador (2015)
Caroline Porr, Lan Gien. Yanqing Yi Catherine Donovan, Barbara Roboethan, Stephanie Young, Jill Allison, Renee Crossman, Doreen Dawe, Karen Parsons

FUNDING
NL-HARP Seed Grant

SUMMARY
Older adults with Diabetes Melitus (DM) in rural Newfoundland and Labrador have limited access to health information. Moreover, focus group participants informed us that existing educational materials are not tailored to unique cultural language, lifestyle and diet. In order to manage their DM, rural older
adults want access to what they consider to be useful educational tools. The purpose of the project is two-fold: first, to address the DM self management educational needs of older adults living in rural NL (Conception Bay North); second, to use the project outcomes as a solid foundation from which to apply to CIHR for funding to implement and test a dialect sensitive and culturally appropriate educational tool across the entire province of NL.

**SOURCE: NL-HARP Funding Application**

**Chronic Pain and Aging in Newfoundland and Labrador: A Quality of Life and Healthcare Utilization Profile (2015)**
Rick Audas, Heather Foley, John Knight, Mary Lawlor

**FUNDING**
NL HAPR project grant

**SUMMARY**
The population of Newfoundland and Labrador (NL) is graying at an alarming rate placing great strain on our healthcare system and society in general. Chronic Pain affects over 30% of the older population in Canada and is associated with low quality of life and high health care costs. We do not know much about aging with Chronic Pain in NL. This study aims to learn more about how Chronic Pain affects healthy aging in NL. It also aims to evaluate how well a pain self-management program decreases disability and subsequent health care costs in seniors and people aging in NL with Chronic Pain. The Center for Pain and Disability Management in Eastern Health maintains a rich collection of data describing the impact of pain on people’s health and lives in NL. We will use this data to enhance the comprehensive aging profile and define what it means to age in NL with Chronic Pain from a physical and mental health perspective. We will then link the data to health care cost information to determine the benefits of a collaborative care program on the burden of Chronic Pain for seniors in NL. This project will contribute to the mandate of the Provincial Healthy Aging Policy Framework and the overall goal of facilitating healthy aging in NL through more efficient and effective Chronic Pain services for our seniors.

**SOURCE: NL-HARP Funding Application**

**What is it Like for Aging Nurses to Live and Work with Chronic Disease in the Province of Newfoundland and Labrador: A Phenomenological Study (2013)**
Sue Ann Mandeville Anstey, April Manuel

**SUMMARY**
There is a dearth of literature that examines how working and living with a chronic illness impacts nurses’ ability to manage their own health and that of their patients (Gabrielle, Jackson, & Mannix, 2008; Levak, 2009; Nahm, Warren, Zhu, An, & Brown, 2012). This concern is justified given the fact that in 2010 the Canadian Federation of Nurses Unions (2012) reported that 25.5% of nurses were over 55 years of age and 11.4% were over 60 years of age (p.3). In NL the average age of a nurse is 43 (CNA, 2012).
The purpose of this study is to gain a greater understanding on what life is like for aging nurses to live and work with chronic disease. It will identify barriers and challenges to maintaining a healthy lifestyle for aging nurses and offer recommendations for employers to facilitate healthy work place environments reflective of aging nurses’ health care needs. This knowledge is critical if employers are to retain a healthy group of nurses who can remain in the workforce longer and provide care for growing numbers of seniors and those with acute and chronic care needs.

The overall objectives of the study include:

1. To gain an understanding of what life is like for aging nurses in the workforce who have chronic disease.
2. To identify the ways in which aging nurses’ work responsibilities influence their ability to maintain their health on day-to-day basis.
3. To identify self-management strategies used by aging nurses with chronic disease in the workplace.

SOURCE: Researcher Submission and NL-HARP Funding Application

Sustaining IT Use by Older People to Promote Autonomy and Independence: Newfoundland and Labrador Cohort (2013)
Wendy I. Young, Canada Research Chair in Healthy Aging, School of Nursing and Faculty of Medicine, Memorial University

COLLABORATORS AND STUDENTS
Investigators and Postdoctoral Fellow:
Stephen E. Bornstein, NLCAHR; Gerard J. Farrell, Director eHealth Research Unit; Veeresh Gadag, Community Health, Faculty of Medicine, Memorial University; Lan T. Gien, School of Nursing; George Klima, School of Nursing; Stephen G. Tomblin, Department of Political Science and Faculty of Medicine, Memorial University; Dr. Jared Clarke, Post-Doc Fellow, Faculty of Medicine, Memorial University; Ben Veenhof, Statistics Canada

FUNDING RESOURCES
CIHR

SUMMARY
Information and communication technologies (ICTs) can help everybody, young and old with their daily lives, and help older people to continue to live independently. Research has shown that more and more older people are becoming users of ICTs, but may face obstacles in sustaining their ICT use. A team of researchers, led by Dr. Wendy Young, Canada Research Chair in Healthy Aging, will find out if older adults living in Newfoundland and Labrador (NL) are using ICTs. The team will also find out if they have given up using them, and if so, the reasons why.

This information will be summarized and compared to similar information from the United Kingdom. We will find out if the ICT problems in Canada and the United Kingdom are similar. Experts from both countries will get together to find solutions to the common problems in NL. One solution will be tried. The researchers will ask the older people if the solution helped them. Dr. Young's project will involve three partners. She will be working with Professor Leela Damodaran, Loughborough University, the leader of the U.K. Project. Professor Damodaran and her colleagues have been studying a community of
older adults to explore their use of new technology. She will also be working with the Seniors Resource Centre (SRC). This community organization has many programs that support older persons. The third partner is Saint Elizabeth Health Care. This home care organization has been using innovative methods to provide education and care to older adults and their families.

The many lessons learned from this joint Canada-UK research initiative will be shared with clients, individuals who care for older adults, and with the politicians responsible for funding the care of older adults. It is hoped that this research will help and effect policy decisions and scientific, technology and design choices that will make sure that older people will enjoy better quality lives.

SOURCE: Yaffle.ca

**Health, Lifestyle and Aging with Multiple Sclerosis: Building an Evidence-Based Self-Management Program (2012)**
Dr. Michelle Ploughman, Clinical Research, Eastern Health

**COLLABORATORS AND STUDENTS**
Dr. John Fisk, Assistant Professor, Dalhousie University; Dr. Marshall Godwin, Director, Primary Health Care Research Unit, Faculty of Medicine, Memorial University

**FUNDING RESOURCES**
CIHR
NL-HARP Project Grant

**SUMMARY**
Multiple Sclerosis (MS) is the most common neurological disease affecting young adults in Canada. MS is characterized by a slow worsening of balance and coordination, paralysis, fatigue, pain, and other neurological symptoms and presently there is no cure. Although it is most often diagnosed between the ages of 15 and 40, people with MS live well into their seventies, most with significant disability. 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?" Although research is growing suggesting that nutrition, exercise and social engagement increase the likelihood of ageing well, we do not know what people with MS can do to increase their likelihood of living long and healthy with their disease.

This study builds on our pilot work in older people with MS. These individuals have lived with MS for 20 or more years, most without the benefit of newer drug treatments. During 18 face-to-face interviews, we learned that social support and exercise were key to living long and healthy with MS, no matter how severe your symptoms. We have developed and piloted a postal survey measuring health, lifestyle and quality of life in older people with MS. In this present study we will expand this survey to about 700 older people with MS who have attended an MS clinic in one of the study centres (NL, NS and Montreal). We want to know if there are modifiable health and lifestyle factors that influence quality of life. We intend to use this information to develop wellness programs for people living with MS, especially those newly diagnosed.

SOURCE: Yaffle.ca
From the Ground Up: Alliances to Address Chronic Pain in the Community (2012)
Dr. Sandra LeFort and Dr. Shirley Solberg, School of Nursing, Memorial University and Thomas Hadjistavropoulos, Centre on Aging and Health, University of Regina

FUNDING RESOURCES
CIHR; Community Alliances for Health Research and Knowledge Translation on Pain

SUMMARY
This research will engage communities of chronic pain sufferers and families, providers of health care and relevant organizations in participatory action research to explore the chronic pain experience, the interface of chronic pain patients/families with the health system, the needs of people with chronic pain, and perspectives about client, provider and system expectations regarding care. We will conduct an in-depth review of the scientific, policy and lay literature to identify existing resources and emerging technologies for both patients and providers of care, and best practice and models of community-based care for chronic pain.

The team includes experts in self-management/self-care with an inter-disciplinary team including methodological expertise in PAR, chronic pain and narcotic use, seniors and chronic pain, psychology, social justice, occupational health and chronic pain, the health care provider perspective and the health system perspective. A number of patient consumer collaborators represent the Arthritis Society. A partnership with the Newfoundland and Labrador Long Term Pain Association will identify chronic pain sufferer’s issues and provide appropriate chronic pain management strategies. Additional collaborators are all from the Atlantic Provinces.

SOURCE: Yaffle.ca

Exploring the Feasibility and Process of Establishing an Online Spatio-Temporal Information System or Age-Related Chronic Disease in NL (2011)
Shabnam Ashgari, Alvin Simms, Marshall Godwin. Kris Aubrey Bassler, Kayla Collins,

SUMMARY
Objectives: Establish an ongoing and online provincial, spatio-temporal information system for chronic diseases (focused on diabetes for the current study). We will:
1) Explore the availability and accessibility of relevant health data; explore the process for accessing this data while ensuring confidentiality and privacy; 2) Evaluate the technical and methodological process for applying health data to a spatio-temporal information system. 3) Develop a prototype of an online, spatio-temporal information system. 4) Evaluate the system with users.

Study Population: Newfoundlanders and Labradorians aged 40 and older determined to have diabetes. Method: Medico-administrative data (from the Canadian Chronic Disease Surveillance System) linked with Census data will be provided by the Newfoundland and Labrador Centre for Health Information (NLCHI). Once NLCHI has provided us with the necessary database, we will compute basic statistical calculations of disease rates (e.g., Crude Morbidity Rate). Next, all data will be integrated with Geographic Information System (GIS) software and prepared for the online system which will consist of two interfaces – one for pre-computed values, another for user-defined parameters. Once the system is
online, we will evaluate its utility by having up to 10 individuals (e.g., researchers, policy-makers, lay persons) evaluate the system. After this, a focus group will be held to discuss the system.

Relevance: The provincial government has identified several priority directions to promote healthy aging. Pursuing these priority directions requires accurate and up-to-date information regarding health status and health care utilization patterns that we hope to provide with the proposed online spatio-temporal information system.

**SOURCE: NL-HARP Funding Application**

Marshall Godwin, Director, Primary Healthcare Research Unit, Faculty of Medicine, Memorial University

**COLLABORATORS/STUDENTS**
Allison Kirby, Dr. Cheri Bethune, Clinical Disciplines - Family Medicine, Faculty of Medicine, Memorial University

**FUNDING RESOURCES**
Newfoundland and Labrador Healthy Aging Research Program

**SUMMARY**
Cardiovascular disease is the leading cause of death in Canada. A major risk factor for cardiovascular disease is lifestyle (smoking status, diet, exercise, alcohol use, stress). Currently, however, an instrument to measure cardiovascular lifestyle as a single construct does not exist. The SLIQ was developed to address the need for such an instrument. However, the SLIQ has not been sufficiently tested, nor have population norms been determined. As such, it is not possible to use the instrument as an outcome or exposure measure in large grant applications. In this study, we hope to measure criterion validity of the SLIQ and to collect normative data in the elderly. To assess criterion validity we will compare scores on the SLIQ with scores on other validated measures of diet, stress, alcohol consumption and exercise. We will recruit people in three age categories: 50-64 years, 65-79 years, and 80+ years, from family physician practices. To assess the population norms we will recruit people from various venues: shopping malls, gyms, and the people recruited from family doctors’ offices. Once we have more clearly delineated these psychometrics (validity and population norms), we will be in a much better position when applying to CIHR and other granting agencies. As well, research and clinical communities will have a validated instrument for measuring lifestyle and changes in lifestyle behaviour. Data collection for this study is ongoing. For the validation portion of the study, we have collected data on approximately 50 of the planned 300 participants. In addition, we have collected over half of our normative data.

**SOURCE: NL-HARP Funding Application**
Cognition, Vision, Hearing

S.M. Mahmudul Hasan, Samantha N. Rancourt, Mark W. Austin and Michelle Ploughman

Defining Optimal Aerobic Exercise Parameters to Affect Complex Motor and Cognitive Outcomes after Stroke: A Systematic Review and Synthesis. Neural Plasticity, 2016. ISSN 1687-5443

Official URL: http://dx.doi.org/10.1155/2016/2961573

SUMMARY
Although post-stroke aerobic exercise (AE) increases markers of neuroplasticity and protects perilesional tissue, the degree to which it enhances complex motor or cognitive outcomes is unknown. Previous research suggests that timing and dosage of exercise may be important. We synthesized data from clinical and animal studies in order to determine optimal AE training parameters and recovery outcomes for future research. Using predefined criteria, we included clinical trials of stroke of any type or duration and animal studies employing any estabs of stroke. Of the 5,259 titles returned, 52 articles met our criteria, measuring the effects of AE on balance, lower extremity coordination, upper limb motor skills, learning, processing speed, memory, and executive function. We found that early-initiated low-to-moderate intensity AE improved locomotor coordination in rodents. In clinical trials, AE improved balance and lower limb coordination irrespective of intervention modality or parameter. In contrast, fine upper limb recovery was relatively resistant to AE. In terms of cognitive outcomes, post-stroke AE in animals improved memory and learning, except when training was too intense. However, in clinical trials, combined training protocols more consistently improved cognition. We noted a paucity of studies examining the benefits of AE on recovery beyond cessation of the intervention.

SOURCE: Memorial University Research Repository

Tubedown in Vision Loss During Aging and Age-Related Neovascular Retinopathies (2015)
Dr. Helene Paradis, Division of BioMedical Sciences, Faculty of Medicine, Memorial University,
Dr. Robert Gendron, Division of BioMedical Sciences, Faculty of Medicine, Memorial University; Thasin Islam, M.Sc. Candidate, Faculty of Medicine, Memorial University

FUNDING RESOURCES
Canadian Institute of Health Research/Regional Partnership

SUMMARY
During aging, vision loss due to blood vessel overgrowth in retinopathy is an important problem that greatly impact upon quality of life and functional independence. Diabetic retinopathy and age-related macular degeneration are the leading causes of blindness in aging populations and both diseases involve retinal blood vessel overgrowth. In Newfoundland and Labrador, rates of diabetes are double the rest of Canada and the population is becoming skewed to an aged population. New, improved therapies are needed to prevent and treat these age-related retinopathies.
We have discovered Tubedown, a novel factor which is necessary for the maintenance of healthy retina by preventing blood vessel overgrowth. Diabetic patients with retinal blood vessel overgrowth and aging subjects show loss of Tubedown expression in retinal blood vessels. Our work on Tubedown in the diabetic and aging retina will evaluate if new treatments for age-related blinding eye diseases could be designed from or based upon Tubedown function.

Applications of our work could have a significant impact on health of Newfoundland and Labrador populations in which blindness related to diabetes or aging are growing public health problems.

SOURCE: Memorial University Research Repository

Do visual enhancements of healthcare instructions improve learning and memory performance in older adults? (2015)
Roberta Didonato, Aimee Suprenant

FUNDING
NL-HARP Project Grant

SUMMARY
Functional independence of instructional activities of daily living IADLs (paying bills, taking medications, driving, computer use) requires the ability to decipher, decode and recall visually-demonstrated information, written-pictorial materials, auditory-verbal instructions or a combination of these. Since older adults are at a disadvantage in sensory-perceptual acuity, processing speed, and memory it is important to determine whether visually enhanced messaging optimizes processing, learning and recall. The purpose of this research is to determine how to visually enhance messaging for improved memory in older adults. Older adults experience sensory-perceptual changes (vision and hearing) that occur with aging and correlate with cognitive change (Salthouse, 2014). Age-related visual changes (poorer visual acuity, decreased contrast sensitivity, and narrowing visual field) (Cronin-Golomb et al., 2007), degrade the message and have been reported to interfere with processing of the information (Schneider & Pichora-Fuller, 2000). DiDonato (2014) demonstrated that effortful listening negatively influenced recall of medical instructions. Also, enhanced auditory-verbal messages and/or enhanced listening abilities improved delayed recall performance for older adults. Perhaps the ease of perceptual processing resulted in the availability of the cognitive processes required for memory encoding. In contrast, degraded listening resulted in the re-allocation of cognitive resources to decipher the message, and therefore fewer resources were available for encoding for later recall (Kahnemann, 1973; Rabbitt, 1968). Similarly, this study will investigate whether visual enhancements can mitigate the effortful perceptual processing that results from age-related visual distortions. Ultimately, can we improve the learning/memory performance for IADLs that will promote functional independence for the older adult population?

SOURCE: NL-HARP Funding Application
Cytomegalovirus Immune Risk Phenotype and Cognitive Functioning in the Oldest Old (2012)
Jacqueline Hesson, Michael Grant

FUNDING
NL-HARP Project Grant

SUMMARY
In studies of the elderly, cytomegalovirus (CMV) has been linked to vascular dementia, cognitive impairment and all-cause mortality. CMV infection in older individuals was recently identified as a critical factor driving development of a set of immunological features known as an “immune risk phenotype” (IRP) that negatively impacts survival in the oldest old. To date, no studies have specifically examined the relationship between CMV-related IRP and cognitive impairment or decline in the elderly. Such studies would clarify whether the IRP associated with CMV is most relevant for cognitive dysfunction. It has also been suggested that pro-inflammatory cytokines, such as tumor necrosis factor-α (TNF-α) and interleukin-6 (IL-6) link CMV and cognitive impairment as high levels of both cytokines are associated with increased risk of dementia. Thus, research addressing whether pro-inflammatory cytokines modify the relationship between CMV and cognitive impairment is also required.

In the proposed study, 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. The IRP generally occurs when CMV-specific cells expand to ≥ 10% of an individual’s T cells. Therefore, the objectives of the present study are to establish the prevalence of CMV IRP in a sample of octogenarians, to determine whether CMV IRP or degree of development towards CMV IRP is associated with cognitive impairment and decline in these individuals and whether the risk for cognitive impairment and/or decline is compounded by CMV IRP in a setting of increased inflammation as indicated by elevated levels of IL-6 and TNF-α. Identifying factors associated with cognitive impairment and decline in the elderly could indicate potential mechanisms of prevention or treatment, which in turn might extend healthy aging in those individuals at risk of cognitive impairment.

SOURCE: NL-HARP Funding Application

Effects of Perceptually Based Noise and Distortion on Memory in Older Adults (2011)
Aimee Surprenant, Department of Psychology, Memorial University

FUNDING RESOURCES
NSERC

SUMMARY
In our increasingly industrial and crowded society, people are almost always working and living in the presence of unwanted noise. The negative impact of this noise on processing information becomes more noticeable as individuals grow older, in part as a result of age-related hearing and vision loss. In addition to these perceptual difficulties, older adults often report difficulty in remembering information. Recent research has identified a link between perceptual processes such as hearing and vision and
cognitive processes, such as memory and understanding conversations.

These studies are aimed at exploring the link between perceptual and memory processes in order to determine how much of the age-related cognitive differences can be traced to perceptual difficulties and how much should be attributed to other causes. The approach will be to measure, control, and manipulate encoding effort and determine its effect on memory performance. To accomplish this, various amounts of visual and auditory noise will be added to stimuli and individual identification functions will be created. Memory performance will be predicted from the identification functions.

Because of the complex interrelation of perceptual and cognitive factors, computer simulation models will be used to describe the contributions of each factor further. The data collected will help focus the research agenda on those factors that are critical to strategies to overcome the difficulties posed by growing older. The long-term goal of these studies is to develop a formal, quantitative model of memory that will allow researchers and practitioners to pinpoint the areas of functioning that are critical to efficient cognitive processing. Determining the causes of age-related cognitive declines will become more and more important in Newfoundland and Labrador, as the percentage of the population over the age of 65 is projected by Statistics Canada to almost double by the year 2031.

SOURCE: Yaffle.ca

Episodic memory binding as a preclinical diagnostic tool for mild cognitive impairment and predicting conversion to Alzheimer's disease (2011)
Annie Jalbert, Department of Psychology

FUNDING
NL-HARP Post-Doctoral Fellowship

SUMMARY
The proposed research project is aimed at studying the binding of visual and spatial information in episodic memory for healthy older adults, for adults suffering from mild cognitive impairment (MCI) and for adults with dementia. It is widely accepted that the preclinical period of Alzheimer’s disease, the period prior to the appearance of major symptoms, lasts, on average, fifteen to twenty years (e.g., Elias, Beiser, Wolf, et al., 2000). The notion of a preclinical period to the disease suggests that early detection is possible and that if “at-risk” individuals are screened early, cognitive, neuropsychological and pharmaceutical interventions can be attempted in order to delay cognitive decline. Early detection is crucial. Indeed, according to the Alzheimer Society of Canada’s Rising Tide report published in January 2010, delaying the onset of Alzheimer’s disease by only two years could save the Canadian Health care system over 219 billion dollars over the next 30 years and could reduce the number of prevalent cases by 36%. Episodic memory deficits are the first key cognitive indicators of prodromal dementia stages (e.g., de Jager & Budge, 2005) since they are thought to represent neurological changes in the hippocampus and entorhinal cortices (e.g., Becker et al., 2006). Episodic memory includes memory for “what”, “when”, and “where” and a healthy episodic memory is characterized by the ability to bind these three contextual variables. There is currently no cognitive test that enables an accurate identification of at-risk individuals suffering from MCI for Alzheimer’s disease. Widely used screening tests such as the Mini Mental Status Examination are not sensitive enough to detect individuals suffering from MCI, making it impossible to distinguish healthy older adults from those experiencing early cognitive decline (de Jager, Hogervorst, Combrick, & Budge, 2003). The creation of a new battery of
cognitive tests, easy to administer and inexpensive, that will permit the distinction between individuals suffering from MCI who will remain stable and individuals suffering from MCI who will progress to dementia is critical. Thus, the aim of the current study will be to assess episodic memory differences between healthy memory decline, MCI and Alzheimer’s disease patients. More precisely, I will attempt to develop a new diagnostic tool to differentiate stable MCI from MCI that will progress to dementia. To do so, I will use the episodic memory task I developed for my master’s degree. It is a computerized task that enables the study of information pertaining to “what”, “where”, and “when” individually or as a bound object. Furthermore, I will examine whether there is a difference in memory performance for this task when the instructions are incidental and intentional. Older adults tend to perform better on memory tests when encoding is incidental and not intentional. Healthy older adults will be recruited from our participant pool in the Cognitive Aging and Memory lab and MCI and early stage dementia patients will be recruited from specialized nursing homes in the St. John’s area.

**SOURCE: NL-HARP Funding Application**

**Healthy aging with a chronic neurological disorder - A profile of community-based programs (2011)**

Jared Clarke, Faculty of Medicine

**FUNDING**

NL-HARP Post-Doctoral Fellowship

**SUMMARY**

An important factor in healthy aging is the resources available to help people cope with the challenges of getting older. This is especially true for those living with a chronic disability that impacts mobility and ability to carry out daily activities, such as stroke or Parkinson’s disease. While these diseases do not discriminate between people living in large urban centres or small rural towns, the availability of services can differ markedly between these types of communities.

The objective of the proposed study will be to examine the differences between services and programs available in communities across Newfoundland & Labrador, with a specific focus on those that are smaller and more rural/isolated. This study will identify service gaps that exist for people living with chronic neurological disorders, and suggest ways to meet those needs in effective and cost-efficient ways.

Representative communities reflecting the demographics of Newfoundland and Labrador (based on size and location) will be selected, and profiles created to determine service needs, availability and gaps. Information will be gathered from both service users (elderly people living with chronic neurological disorders and their families and caregivers) and service providers from across the health care spectrum using a combination of surveys, interviews and focus groups. A survey of all relevant services available in each community will also be carried out, including both formal (e.g. physiotherapy, home care) and informal (e.g. church social groups, volunteer meal delivery) programs. The second phase of the study will use these results to develop a set of recommendations that can be used to provide better care and services for seniors living with disabilities, allowing them to maintain higher levels of independence and quality of life in their own communities. These recommendations will be applicable to communities across the province and country. Future directions of this research will directly test community-based interventions based on these recommendations.
This research will fill a significant knowledge gap in our health care system, leading to recommendations that will directly impact the quality of life and independence of seniors living with chronic neurological disorders and disabilities – an especially vulnerable population. The unique needs of this group, especially those living at home and in smaller communities, are often neglected and poorly accounted for in current health policy.

The proposed project addresses a number of priority directions in the Provincial Healthy Aging Policy Framework. With a specific focus on the role of supportive communities (Direction #3) in the health, well-being and independence of seniors with chronic conditions (Direction #5), this research aims to find ways to promote healthy aging in all communities, regardless of size and geography (Direction #2). The results will be used to educate the community, service providers and policy makers, and the research model developed for this study can be used to examine other types of needs and service gaps for seniors across the province (Direction #6). The collaborative approach, along with my involvement with several research groups, matches the NLCAHR mandate to build local research capacity in the aging field.

**SOURCE: NL-HARP Funding Application**

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**Determining the Needs of Community Dwelling Older Adults with Age-Associated Memory Loss and Mild Cognitive Impairment in Newfoundland (2009)**

Dr. Karen Parsons-Suhl, Dr. Aimee Surprenant, Dr. Marshall Godwin, Ms. Anne Marie Tracey

**FUNDING**
Newfoundland and Labrador Centre for Applied Health Research

**SUMMARY**
This study will identify priority health-related needs of community dwelling individuals with mild memory loss and their primary support person. It will also assist to identify the services and potential intervention strategies that could assist this group of individuals to meet these needs.

**SOURCE: Yaffle.ca**

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**Cognition Over the Lifespan (2003)**

Dr. Aimee Surprenant, Department of Psychology, Memorial University, Dr. Ian Neath, Annie Jalbert, Brittany Faux, Department of Psychology, Memorial University

**FUNDING RESOURCES**
MUN, NSERC, CFI, US National Institutes of Health

**SUMMARY**
In our increasingly industrial and crowded society, people are frequently working and living in the presence of unwanted noise. The negative impact of this noise on processing information becomes more noticeable as individuals grow older, in part as a result of age-related hearing and vision loss. In addition to these perceptual difficulties, older adults often report difficulty in remembering information. Recent research has identified a link between perceptual processes such as hearing and vision and
cognitive processes such as memory and understanding conversations. This project explores the link between perceptual and memory processes in order to determine how much of the age-related cognitive differences can be traced to perceptual difficulties and how much should be attributed to other causes. The approach will be to measure, control and explain difficulty in understanding and determine its effect on memory performance. To accomplish this, various amounts of visual and auditory noise will be added to stimuli and individual identification functions. Using identification functions, it will be possible to predict memory performance.

SOURCE: Yaffle.ca
Care in the Community

**Palliative/End-of-Life Care in Rural Settings: Support to Informal Providers of Care (2015-ongoing)**
Dr. Gail Wideman, School of Social Work with Co-Investigators: Dr. Victor Maddalena, Dr. Susan MacDonald, Dr. Daryl Pullman

**FUNDING**
Enhancing Healthcare in NL Awards Funding-2015

**SUMMARY**
Comprehensive care in the context of terminal and life-limiting disease includes support for informal (family or friend) caregivers. An absence of community-based palliative and End-of-life (P/EOL) care resources means that informal caregivers are often left to cope with the complex needs of their loved ones at the end-of-life. The aim of this project is to assess both the capacity of rural communities to support informal caregivers, as well as the experiences and expressed needs of informal caregivers in rural places who are providing this essential care. Using a novel high and low tech approach in conducting this environmental scan and gap analysis, this project will provide information about P/EOL programs, services and policies, especially as they impact informal caregivers in rural NL. The outcome will advance communities’ capacity to undertake the planning and delivery of P/EOL care – from policy, to programs and services, to volunteer initiatives.

Research Questions:
- What is the current state of P/EOL services in rural NL and how does this impact (either positively or negatively) the capacity of informal caregivers to provide effective P/EOL care in rural communities?
- What is known about P/EOL programs and services in NL?
- What are the impressions of local/regional service providers about the reach of P/EOL programs in rural NL?
- What do end-users — family and friend providers and care receivers — of P/EOL support describe as assets ad challenges to dying in place?
- What can be done to better support informal providers of P/EOL care in rural places?

Objectives:
- Identify existing policies and programs (both provincially and regionally) that are aimed at rural P/EOL care
- Summarize formal providers’ views of strengths and gaps in the implementation of programs and policies, and/or the need to develop new policies
- Explore end-users’ experiences of providing and receiving P/EOL care in rural places.

**SOURCE: EHC Funding Application**
Supporting the Independence of Persons with Dementia (2015 CHRSP Study)
Neena Chappell, Stephen Bornstein, Rosemarie Goodyear, Rob Kean, David Speed

SUMMARY
This requested synthesis focused on interventions that could potentially help people with dementia to stay out of long-term care (LTC). The term “LTC” refers to any facility that provides living accommodation for people who require on-site delivery of 24-hour, seven-day-a-week supervised care. In Newfoundland and Labrador, admission to LTC is restricted to people requiring what is known as “level three” care or higher. Level three care is defined as care “that [is] required by a person who is chronically ill and/or has a functional disability (physical or mental)” and who “therefore requires a range of therapeutic services, medical management, and skilled nursing care plus provision for psychosocial needs” for months or years. The team also identified a set of outcomes that would be used in the synthesis to assess the various interventions described in the research literature. Preliminary literature searches indicated that, when assessing interventions designed to maximize the independence of people with dementia and reduce their reliance on LTC, researchers often evaluate an intervention’s effectiveness according to ‘proximate’ outcomes such as institutionalization or delayed institutionalization, as well as a set of more ‘distal’ outcomes such as performance of activities of daily living (ADL) and caregiver burden. Through subsequent discussions, the team resolved that the synthesis would only include articles that measured:

- a ‘proximate’ outcome such as delayed institutionalization, and/or
- at least one of the following ‘distal’ outcomes:
  - ADL performance
  - caregiver burden or distress, and
  - safety of the care recipient

Project team members, each of whom has a professional and/or scholarly background in care for persons with dementia, felt strongly that these particular distal outcomes were important because they are often determinants of admissions to LTC.

The research question was:
“**What interventions are most effective in preventing or delaying the admission of people with dementia to long-term care?**”

KEY FINDINGS:
- There is Promising Evidence for Psychoeducational support interventions for caregivers
- There is partial or qualified evidence to demonstrate the effectiveness of Case management, Physical exercise, and Interventions targeting ADL performance
- Either there is no moderate-to-high quality review evidence to demonstrate the effectiveness of the intervention, or the combined reviews include only one primary study, or no primary studies on Respite care, Meditation (for caregivers), Interventions for preventing urinary incontinence.

**SOURCE:** www.nlcahr.mun.ca/CHRSP
Looking Back: An examination of the impact of social isolation on seniors’ health in Newfoundland and Labrador (2014)
Dr. Rick Audas

SUMMARY
The 1995 Newfoundland Adult Health Survey provided a good insight into the health status of the Newfoundland adult population at the time (see Segovia, Edwards and Bartlett, 1999; Segovia, Edwards and Bartlett, 1996); however no research using this data set has ever described the health of this group over time. The data set, which provides a detailed assessment of current health status, health practices, socio-economic and demographic characteristics, gives an unprecedented opportunity to explore how the health of Newfoundlanders has evolved from 1995 to 2011.

The rationale for this study is to profile the health trajectories, outcomes and utilization of a large sample (c. 9000) of Newfoundlanders in order to examine the extent to which lifestyle, in particular social isolation, factors influence health. Social isolation is an important topic for seniors and can impact many areas of their lives. Social isolation, or loneliness, can have a detrimental impact on seniors’ physical and mental health (Wilson et al., 2007; Cornwell & Waite, 2009). Social isolation can also result in more hospital and institutional stays for seniors (Coulton & Frost, 1982; Health Quality Ontario, 2008) and may also result in higher mortality rates (Tomaka, Thompson & Palacios, 2006).

This study will inform the literature on the link between social isolation and health outcomes for Newfoundlanders across the age spectrum, with the view to examining how social isolation impacts individuals across the life course and to determine if older Newfoundlanders are more socially isolated and the impact this has on their health and well-being. It will also aid in adding to the limited body of literature surrounding adult health in Newfoundland and Labrador. The link between this study and principles of social inclusion, dignity, and self-fulfillment as outlined by the Government of Newfoundland and Labrador will help to shape healthy public policy in this province.

SOURCE: NL-HARP Funding Application

Community-Based Service Models for Seniors (2013 CHRSP Study)
Howard Bergman, Michel Grignon, Bruce Cooper, Stephen Bornstein, Pablo Navarro, Stephanie O’Brien

SUMMARY
In Newfoundland and Labrador, senior citizens, their caregivers and families, as well as the provincial government and the Regional Health Authorities (RHAs) are interested in developing workable strategies that will help seniors remain at home, in their own communities, for as long as possible - a concept known as "Aging in Place." For most seniors, staying at home is intrinsic to both independence and quality of life. From a government/health system perspective, helping seniors remain at home is a sign of successfully and sustainably meeting their needs and supporting their choices.

The population of Newfoundland and Labrador is aging. Seniors are living longer than ever before. Medical and technological advances have now made it possible for seniors with a range of health and disability issues to remain in their homes, where in the past they might have had to move into institutional care. Simultaneously, the effects of out-migration continue to stretch and erode traditional support networks for seniors. The Newfoundland & Labrador healthcare system has acknowledged the need for new and creative strategies to assist seniors living at home.
The Department of Health & Community Services proposed a Contextualized Health Research Synthesis Program (CHRSP) project to address this issue, with a study on how community-based primary healthcare teams could best support community-dwelling seniors and their caregivers. Such an approach could possibly make more effective use of existing services, as well as efficiently and effectively reallocating support resources.

**KEY FINDINGS**

Geriatric Assessment, as an activity of integrated care or as a stand-alone intervention, is consistently and significantly effective for maximizing the time older adults live at home and for reducing hospitalizations among frail older adults.

Case Management, when implemented with appropriate patients/clients, is significantly and consistently effective for older adults living in the community in terms of helping them stay in the community, improving appropriate service use, and prolonging autonomy.

Some Community-Based Fall-Prevention Exercise Programs have been shown to reduce falls among seniors living at home. Environmental programs that improve home safety and personal mobility are also effective for preventing falls among high-risk seniors.

The evidence indicates that models of Partially Integrated Care have been shown to help seniors stay at home and to reduce hospital admissions whereas the evidence concerning Fully Integrated Care is unclear or of low quality.

Some forms of Support Groups are consistently effective at reducing caregiver burden.

Community-based models of Respite Care can be beneficial for some, but not all, caregivers and for some, but not all, outcomes of interest.

Preventive Home Visits that include health promotion reduce the risk of mortality among at-risk seniors.

Facilitated Access to health and social services appears to be a critical component of effective integrated care programs.

Involving Primary Health Service Providers, including family physicians and community-based nurses, appears to be a critical component of effective integrated care programs.

**SOURCE:** www.nlcahr.mun.ca/CHRSP

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**Grandmothers on the Move: Older Women Immigrants and Healthy Aging (2013)**

Marilyn Porter | Sociology, Memorial University | Mporter2008@gmail.com

**FUNDING**

NL-HARP Seed Grant
SUMMARY
Although Newfoundland and Labrador has a much larger immigrant population than many people realize, the immigrant communities are smaller than major receiving cities such as Toronto. The small population poses particular difficulties for immigrants, especially for older immigrants, for example in identifying and accessing programs and services targeted to their specific needs.

Working with and through immigrant community groups, focus group discussions and individual interviews with older immigrant women and their families, the project will investigate aspects of older immigrant women’s experience as immigrants in Newfoundland and Labrador. Through the collection of life stories it will establish the patterns of family immigration to Newfoundland, for example whether the generations arrived separately or together, whether the initial settlement was in NL or elsewhere in Canada. In particular, the project will ask the following questions:

• Why and how do older immigrant women come, and what are the particular barriers in the immigration process, especially if older relatives join established immigrant families?
• What are the settlement issues for older immigrant women, especially around language and access to health and social services?
• What are the caring arrangements within immigrant families? What resources are available to older women as they age? What are their contributions to the family and the community especially in terms of care responsibilities for their grandchildren?
• How far are the health and social needs of older immigrant women different from those addressed in the Provincial Healthy Aging Policy Framework? How far is the province addressing those needs within its policy framework?

SOURCE: NL-HARP Funding Application & researcher submission

Telegerontology: a novel approach to optimize health and safety among people with dementia in Newfoundland and Labrador (2013)
Dr. Roger Butler, Dr. Michelle Ploughman, Dr. Gerard Farrell, Ann Hollett

SUMMARY
Importance: Over 500,000 Canadians suffer from dementia; 7500 in Newfoundland & Labrador (CIHI 2010). People with dementia have complex health needs and require interdisciplinary care. Promoting health, ensuring safety and preventing institutionalization are priorities for people with dementia and their caregivers. The report ‘Seniors in Need; Caregivers in Distress’ by the Health Council of Canada confirms that most caregivers are spouses who provide care 24/7. In their study sample, at least 20% of home care clients had Alzheimer’s or another dementia. Caregivers of patients with dementia provided 75% more care than other caregivers and experienced nearly 20% higher levels of stress. Originality: Telegerontology is an approach using video conferencing to connect the interdisciplinary team in a regional specialty centre to people in rural health care facilities or their homes. To our knowledge, the technique has not been evaluated within the Canadian Health Care system. With urbanization and an aging rural population, Newfoundland & Labrador is an ideal setting to test the effects of telegerontology. We do not know what technology(ies) will suit regions of the province best. We also do not know how the technique will fit into the current health care landscape (e.g. relationships with community health agencies and primary care clinics). The benefits of Telegerontology on health care utilization (emergency room visits, hospital admissions etc) are not known.
Objectives: The goal of this project is to test Telegerontology; an innovative way to assist people with dementia and their caregivers to stay safe and healthy in their own homes. Using the remotely delivered expertise of the dementia care team (gerontologist, psychiatrist, nurse, occupational therapist, physiotherapist) we intend to enhance the caregiver/patient dyad and thereby improve care ‘in place’ for people with dementia.

Research Plan: 4 primary care practices in rural areas of the Eastern Health Authority will be cluster randomized such that their patients (n=20) will receive either telegerontology or control intervention (customary care and dementia education) for 6 months with follow-up at 6 and 12 months. Primary outcomes include caregiver stress, home safety, challenging behaviours and health care utilization. Secondary outcomes include caregiver and physician satisfaction, minutes of care at home and in hospital and utility of the technology.

Relevance: Our project aligns exceptionally well with two of the four 2012 HARP priority research themes; to support research that impacts caregiving and innovative approaches for people living with dementia.

SOURCE: NL-HARP Funding Application

Creating Productive and Healthy Environments for Older Workers (2012)
Dr. Lan Gien, Principal Investigator, School of Nursing; Dr. Stephen Bornstein, Director, NLCAHR; Dr. Scott MacKinnon, Canada Research Chair in Workplace Health and Safety, Department of Human Kinetics and Recreation; Dr. Sandra LeFort, School of Nursing, Memorial University

COLLABORATORS AND STUDENTS
Canadian Association for the Fifty Plus, the National Pensioners and Senior Citizens of Canada, and the Seniors’ Resource Centre of Newfoundland and Labrador

FUNDING RESOURCES
Canada-UK Aging Initiative in partnership with CIHR’s Institute of Aging

SUMMARY
Inactivity associated with retirement can lead to mental and physical illnesses which reduce the quality of life of individuals and their families and increase health care costs. While many older Canadians wish to work past the age of 65, family obligations, health problems, transportation difficulties, changing demands of work, inflexible schedules and other personal reasons may make this a challenge.

This study is intended to promote longer employment of this age group, and the researchers would like to talk with older workers in Newfoundland & Labrador to understand more about what they see as barriers and challenges for extending their work life. The research team will use this information to suggest changes in the workplace or in existing policies to encourage older workers to remain in employment longer.

Findings and lessons learned from this project will be shared with all partners, seniors’ groups, the general public and health care workers so that older workers can get the support they need to remain longer in the workforce if they choose. The project is intended to help older workers achieve their full
potential and help them to feel good about themselves. As such they can remain healthy as they age and contain the cost to the health care system.

*SOURCE:* Yaffle.ca

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**Home Share NL (2012)**
Dr. Gail Wideman, School of Social Work, Memorial University

**COLLABORATORS AND STUDENTS**
Andrew Harvey, Home Share NL, Dr. Stephen Bornstein, NL Centre for Applied Health Research, Rhonda Legge, MSW Student

**FUNDING RESOURCES**
Government of Canada - Homelessness Partnering Strategy
Government of Newfoundland and Labrador - Office of Aging and Seniors
The City of St. John's
The Town of Paradise
The Town of Torbay

**SUMMARY**
Home Share NL is a 2-year pilot project designed to house students with seniors (50+). The project is not a research study, but opportunities for research exist in the program evaluation. Newfoundland and Labrador has the highest rate of home ownership amongst seniors in the country at the same time as having a desperate housing situation for students across the province. Home Share NL links seniors (defined broadly as 50+) who live in their own homes with students who are seeking affordable accommodations. This arrangement can be as simple as a rental arrangement, to bring extra money into the household to offset the cost of living, or can involve an exchange of services for a reduction of rent. Home Share NL uses existing housing stock to facilitate aging in place for seniors across the province. Well beyond the physical housing which the program open up are the soft, social benefits of the program, including intergenerational learning, increased sense of security in the home and companionship, for all parties involved.

*SOURCE:* Yaffle.ca

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**Job Satisfaction Among Older Workers in ‘Dead-End’ Jobs (2011)**
Gordon B. Cooke, Faculty of Business Administration, Memorial University; Sara L. Mann, Department of Business, University of Guelph; James Chowhan, PhD. Student, DeGroote School of Business, McMaster University; Isik Zeytinoğlu, DeGroote School of Business, McMaster University

**FUNDING RESOURCES**
Social Sciences and Humanities Research Council of Canada

**SUMMARY**
The quality of work has been declining due to economic recessions, globalization of production and labour markets, developments in computer and information technology and restructuring. There is a growing polarization of working conditions. The Canadian labour market has shown high unemployment, underemployment and employer strategies of growing use of non-standard and flexible work arrangements. Stable career paths are becoming increasingly rare. Many indicate the only
available opportunities are part-time, temp/insecure, and/or 'dead-end' jobs, which are of lower quality than full-time, permanent jobs. Individuals with better skills and higher education are more likely to have better jobs. A minority of workers enjoys very favourable working conditions, and a growing proportion is 'stuck' in poor quality jobs. Previous studies have found positive relationship between job quality and job satisfaction. This study seeks to understand the job quality and subsequent level of job satisfaction that older workers experience.

Since the labour force is aging, there is increasing importance for employers to satisfy and retain older workers. However, employers have to manage labour costs efficiently (which can mean designing jobs in a way that workers do not necessarily prefer). The purpose of this study is to assess the degree to which education is a predictor of having a low-quality (dead-end) job among older workers, and to assess the extent to which having a low-quality (dead-end) job is related to job satisfaction.

Quantitative data from Statistics Canada’s 2005 Workplace and Employee Survey (WES) microdata is supplemented by results from a qualitative study involving semi-structured interviews with older workers in Ontario and Newfoundland.

Among older workers, attained education is the only significant predictor of having a job with low pay, skill and benefits. Having one of these types of jobs is associated with lower levels of job satisfaction, therefore potentially a 'dead-end' job. Having a job with non-standard employment status was not significantly associated with lower job satisfaction so is it actually a 'dead-end' job? Many older workers indicate that for a job to be ‘good’, it needs to provide meaningful stimulation and adequate rewards.

Presented at CIRA Annual Meeting, Fredericton, NB, June 2011

SOURCE: Yaffle.ca

The ElderCare Project: Primary Health Care for Community Living Old Elderly (2011)
Marshall Godwin, Director, Primary Healthcare Research Unit, Faculty of Medicine, Memorial University

COLLABORATORS AND STUDENTS
Farah McCrate, Robert Miller, Wanda Parsons, Anne Sclater, Sharon Buehler, Veeresh Gadag, Karen Parsons, Faculty of Medicine, Memorial University

FUNDING RESOURCES
CIHR

SUMMARY
The Old Elderly, those aged 80 and older, are the fastest growing age subset of the population. They are more likely to have chronic illness, more likely to be using multiple medications and are more likely to visit their physician. However, a physician is not always necessary to address the many concerns of the elderly; other venues of care may be more cost and time effective. This study will implement and evaluate a nurse-based program of home-delivered care, linked directly with the family physician or primary care team.

The main objectives are to improve Quality of Life for the old elderly and lessen the burden on the
primary health care system. These improvements will be made through an intervention called the ElderCare Program. An ElderCare Plan will be developed for each patient using Goal Attainment Scaling methodology and will provide education and information about chronic disease self-management, available community resources, activities of daily living help and any other needs the patient may have. Goals and other needs will be determined based on patient, family member (where applicable), and physician input, and on information from a variety of assessments carried out at baseline. Assessments at 6 months and 12 months will test the outcomes of the program. To date, 40 family physicians from 14 different clinics have enrolled in the study. Patient recruitment currently sits at 230 with patients in various stages of follow up. Follow-up of the final participants will occur in October 2011.

**SOURCE: Yaffle.ca**

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**Work Schedules Among ‘Older’ Workers (2011)**

Gordon B. Cooke, Faculty of Business Administration and Deidre Hutchings, MBA Student, Faculty of Business Administration, Memorial University

**FUNDING RESOURCES**

SSHRC

**SUMMARY**

This study categorizes ‘older’ workers according to their employment status and work schedule, and explores the self-reported impacts of those job conditions on the financial and emotional well-being of these individuals and their families. It examines the experience of older (40+ years) of urban and rural workers in Ireland, Newfoundland and Ontario. Rural workers are affected by outmigration, rural to urban migration, challenges facing traditional primary sector industrial activity, and broadly changing lifestyles. Older workers may have different perceptions of work, financial expectations and requirements and non-work interests. In addition, the work force is aging.

Work experiences and opportunities varied in each geographic area. Older workers appear to view employment as one element of their life. They are more inclined to think about how employment will affect other aspects of their life as opposed to focusing solely on their career. While there were some workers who maintained full-time employment, the overwhelming majority occupied non-standard working arrangements in which they seem content. Workers appeared to be most happy with the ability to sustain their lives in their chosen community. Older workers in rural areas seemed realistic and accepting of the often-limited employment options available to them. They have chosen to live in a rural community and seem prepared to make financial sacrifices to do so. The emotional attachment to rural life played a larger than expected role for these participants in their decision making process when choosing employment.

Presented at ACRI/CIRA Annual Meeting, Fredericton, NB, June 2011

**SOURCE: Yaffle.ca**
Working Late: Strategies to Enhance Productive and Healthy Environments for the Older Workforce - the Canadian Context (2010)

PI Dr. Lan Gien, School of Nursing, Cis S. LeFort, S. Bornstein, S. MacKinnon, C. Haslam
FRN: 94352

FUNDING
CIHR: $225,000 | NL-HARP Faculty Buyout Grant

SUMMARY
Newfoundland and Labrador (NL) has the fastest growing older population in Canada (Statistics Canada, 2006). NL’s population is, on average, less active and more overweight than people in other provinces and has higher incidences of chronic illnesses. The faster graying of NL population is due to decreasing provincial birth rates and a net population loss from out-migration, mostly of young people and young families who have sought work elsewhere. This out-migration has accelerated during the last fifteen years, triggered by the fishery collapse in 1992. This demographic shift in NL and in Canada as well as in most developed nations shrinks the workforce, diminishes the general tax base of the country and puts pressure on public pensions. More importantly, physical inactivity related to retirement is a risk factor for a number of chronic diseases, leading to considerable economic and public health burden for the country and lower quality of life for older people. To address the above concerns, most provinces and territories of Canada (including NL) have recently abolished mandatory retirement at the age of 65 (CBC news, February 2008). This change in legislation encourages workers to remain in employment. Although the aging workforce brings benefits, it presents new challenges for not only government, employers and occupational health services, but also for individual employees and their families. Much research hence is needed to assess the barriers and challenges of working in later years.

To date most studies conducted in Europe have addressed specialized areas or selected groups of older workers (Crawford, 2005). Fewer studies have been completed in Canada to explore the impacts of deferred retirement (Barnett, 2005; Blakeley & Ribeiro, 2008; Singh, 2003). It is hence timely to have a comprehensive interdisciplinary research program addressing the determinants of healthy work life in later years, and to develop approaches to support older workers. In response to this research need, we collaborate with the UK researcher team, led by Professor Cheryl Haslam of Loughborough University to conduct in Canada part of the UK funded research program Working Late: strategies to enhance productive and healthy environments for the older workforce. The UK project is funded for four years by the UK research councils, the Canadian component is funded for three years (2008-2011) by the CIHR-Institute of Aging. Research objectives and methodology: While the overall purpose of the UK research program is to address practice and policy relevant issues associated with work in later life and develop interventions and design solutions to promote health and productivity and improve the quality of working life of older people, the Canadian component aims at optimizing health, well being, safety and productivity of older workers of NL through addressing the first three of five objectives of the UK project, using the NL context. They are to:
1. Engage with agencies, employers and older workers to guide the research process and deliver effective and wide ranging dissemination of the findings and outputs.
2. Identify barriers and facilitators to working late, including the conflict between employment, family care responsibilities, the impact of age discrimination legislation and the logistics of the journey to work.
3. Identify optimal, evidence-based occupational health provision and collate current best practice in occupational health services accommodating the older worker.

SOURCE: NL-HARP Funding Application

Determining the Needs of Community Dwelling Older Adults with Age-Associated Memory Loss and Mild Cognitive Impairment in Newfoundland (2009)
Dr. Karen Parsons-Suhl, School of Nursing, Memorial University; Dr. Aimee Surprenant, Psychology Department, Memorial University; Dr. Marshall Godwin, Director, Primary Healthcare Research Unit, Faculty of Medicine, Memorial University; Ms. Anne Marie Tracey, Associate Director BN Program, Eastern Regional Integrated Health Authority, Newfoundland

FUNDING RESOURCES
Newfoundland and Labrador Centre for Applied Health Research

SUMMARY
This study will identify priority health-related needs of community dwelling individuals with mild memory loss and their primary support person. It will also assist to identify the services and potential intervention strategies that could assist this group of individuals to meet these needs.

Source: Yaffle.ca

Development of an Age-Friendly Communities Research Team (2009)
Dr. Wendy Young, School of Nursing, Dr. Catherine Donovan, Dr. Alvin Simms, Gail Wideman (PhD Candidate)

FUNDING
NL-HARP Seed Grant

SUMMARY
The Government of Newfoundland and Labrador is currently moving forward with Goal 10 of the provincial Healthy Aging Policy Framework which states “communities and municipalities will be more age-friendly”. It is anticipated that a provincial program will be forthcoming. In the absence of a provincial program Clarenville has moved forward with this work. They have formed a committee, the Random Age Friendly Communities, to describe its age-friendly features and barriers, and to develop action plans. If a provincial program is launched this project may engage other communities. Our team of researchers is asking for funds from the Healthy Aging Research Program (HARP) to assemble a research team that will start to look at differences in age-friendliness among communities and over time. We want to know if Clarenville and other communities become more age-friendly and if people do become healthier as a result.
With HARP funding we will:
• Establish an Advisory Group
• Find out what information people in communities need
• Find out how other people are measuring age-friendliness
• Decide how we are going to measure age-friendliness
• Explore the use of creative ways to show age-friendliness on maps
• Develop a proposal for funds to compare age friendliness among communities and over time.

Through this research, we will provide information to communities and government that will help them improve the lives of older people.

SOURCE: NL-HARP Funding Application

The Effectiveness of the Edmonton Symptom Assessment System (ESAS) in Monitoring Palliative Care Patients in the Community (2008)
Dr. Gerard Farrell. eHealth Research Unit, Dr. Susan MacDonald, Divisional Chief of Palliative Medicine, Eastern Health

FUNDING
NLCAHR Project Grant

SUMMARY
OBJECTIVE
The objective of this study will be to assess the effectiveness of using an online version of the Edmonton Symptom Assessment System (ESAS) as a means of monitoring and assessing symptoms of palliative care patients in the community.

RELEVANCE OF WORK
As the population ages and rates of cancer increase, growing attention is placed on the development and expansion of palliative care programs. Palliative care assessments occur in institutional settings such as inpatient consultations, palliative care units, or during home hospice care evaluations. This study assesses a means of expanding traditional approaches to symptom evaluation by providing access to an online format of a symptom assessment tool, the ESAS, to palliative patients. This will allow the palliative care providers to remotely monitor patient symptoms and effectively schedule interventions and deliver patient care as required. The ESAS is designed to assist in the assessment of nine symptoms common in palliative patients. It is a simple, validated, self-report tool used to assess the intensity of the most common symptoms in patients with advanced, incurable illness (Follwell et al., 2009). Despite growing use of the ESAS as a measure in palliative symptom management, few studies have used the scale in outpatient settings and no studies permit patients in the community to use the scale from home (Rabow et al., 2006).

METHODOLOGY
Patients seen in a palliative care outpatient clinic will be recruited to participate. To be eligible patients will need to have access to a computer with an internet connection and give informed consent. Participants will go on to the secure site with an individual user identification and password 4 times/week. After login, participants will complete the 9 items of the ESAS measuring symptom severity and submit responses. Patient responses will be accessible by the palliative care team who will be able
to view single date entries or responses over time so that trends can be recognized. These data will be reviewed regularly. Any concerns the palliative care physician has regarding patient symptoms will be addressed through a phone call to the patient. This communication will allow a discussion regarding patient responses and permit caregivers to remotely monitor patients, modify or change caregiver follow-up and schedule necessary future appointments. As this is intended as a pilot project the goal is to recruit 60 participants for a 3 to 6 month evaluation period.

This augmented form of patient-physician communication will enhance the quality of life for palliative patients as the number of medical appointments will be reduced while ensuring excellent care. The challenge of geographic distance between patient and provider is removed because of the use of simple, readily available technology. Further, the burden on the health care system is reduced as the palliative care team may more effectively use their time to care for patients.

SOURCE: NLCAHR Awards Funding Application
Care in Institutional Settings

Reducing Antipsychotic Medication Use in LTC Collaborative (2015)

K. O’Brien, H. Brown (CFHI Collaborative Project)

CENTRAL HEALTH TEAM: Executive Sponsor: Heather Brown; Project Lead: Mimi Carroll; Measurement Lead: Natalie Howell; Clinical Champion: Dr. Jody Woolfrey; Pharmacy Champion: John King; Therapeutic Recreation Champion: Doug Keough; Family Advocate: Dr. John Trend

WESTERN HEALTH TEAM: Executive Sponsor: Kelli O’Brien; Project Leads: Renee Luedee Warren and Lori Scott; Measurement Lead: Julia Fequet; Clinical Champions: Dr. Cliff Westby, Jody Burt, David Tappe, Debbie Dolomount; Pharmacy Champion: Regina Staples; Therapeutic Recreation Champion: Patricia Barrett

SUMMARY

Canadian Foundation for Healthcare Improvement is calling for:

(a) Long term care homes and provincial-territorial governments to step up efforts to change the culture of over-medicating seniors with dementia, and increase access to alternate behavioural support programs. (b) Healthcare providers to take better patient histories, conduct more regular medications reviews and work as care teams with family members. (c) Frontline staff in LTCs to tailor services – including music, pet or recreation therapy that replace strong medications – to support quality of care and quality of life for residents.

Central Health operates 11 Long Term Care Homes for a total of 518 LTC beds (including 1 Protective Community Residence which accommodates 12 residents).

Western Health operates 6 Long Term Care Homes and 4 Protective Community Residences for a total of 474 LTC beds (40 beds of which are located in the PCRs).

Central Newfoundland has the highest rate of antipsychotic drug use amongst residents in LTC without a diagnosis of psychosis in the country (Approx. 40%). In Western Health Approximately 39% of all LTC residents in are prescribed an antipsychotic medication (Range 21%-87%). Antipsychotic medications were introduced more than 50 years ago. These medications were developed to treat psychotic conditions such as Schizophrenia. These medications were never developed to treat dementia and can be unsafe for use in the frail elderly population. More than 90% of our residents receiving antipsychotic meds do NOT have a diagnosis of schizophrenia.

CFHI (Canadian Foundation for Healthcare Improvement) issued an expression of interest issued for participation in a National Quality Improvement Collaborative in March 2014. The aim of the collaborative was to spread innovation and evaluate results, reduce antipsychotic usage and analyze collective lessons. Three Regional Health Authorities NL accepted (Eastern Western, and Central health). There are 15 national teams in total. Collaborative pre work began June 2014 and a 12 month implementation of reduced drug usage was implemented between September 2014 and September 2015. The aim was to decrease antipsychotic medication usage rates by 15% amongst persons living with dementia at each of 4 pilot sites in Central Health and to decrease antipsychotic medication usage rates by 25% amongst persons living with dementia at pilot site in Western Health by September, 2015. Then, the aim of the project was to develop and implement spread plan for all sites.
In Western Health, 38% of the cohort (17 of 29) residents had antipsychotics completely discontinued. 11/29 were in the process of medication titration and 100% of cohort had their total daily dose of antipsychotic drugs reduced. In Central Health, 26% of the cohort (11 of 42) residents had antipsychotics completely discontinued. 11/42 had their total daily dose decreased; 5 of 42 had their total dosage increased; 10% discontinued some drugs but still received one or more antipsychotics and roughly 14% of the remaining cohort was on more than one antipsychotic. Reviewing the data from baseline to the end of the 3rd quarter there is a marked decrease in the residents CPS scores which indicates an increase in cognitive functioning. Data from baseline to the end of the 3rd quarter indicate an improvement in ADL functioning.


**SOURCE:** Research Exchange Group on Aging Webpage: [http://www.nlcahr.mun.ca/Research_Exchange/AgingREG.php](http://www.nlcahr.mun.ca/Research_Exchange/AgingREG.php)

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**Family Involvement in Protective Community Residences: Family members’ perspectives. (2015)**

**SUMMARY**
The importance of family to residents living with dementia in nursing homes and assisted living environments cannot be overstated. The purpose of this study was to determine the perspectives of family members regarding family involvement and the importance of family involvement following relocation of their loved ones to a Protective Community Residence (PCR). The PCRs provide housing, and care for individuals with mild to moderate dementia that is similar to supportive housing or assisted living offered in other jurisdictions in Canada. For this descriptive study, 20 families of residents who moved into two of four PCRs in Western Newfoundland (NL) were invited to participate in completing the Family Involvement Instrument and the Family Assessment of Importance questionnaires. Seven family members participated in the study by completing and returning the questionnaires. Overall, respondents agreed that their family members were well cared for, that they trusted the staff, that they were informed about changes in their family members’ care plans, and that they felt comfortable phoning the staff to discuss how their family members were doing. Specific areas where respondents were less involved included the lack of a support group, family information meetings and opportunities to provide opinions regarding quality of care. Additionally, very few respondents agreed that staff provided support to plan for the death of a family member and to prepare for handling of their family members’ estate. The findings demonstrate a high degree of family involvement in two PCRs. The current study findings, although limited due to the small sample size, are important to guide quality improvement initiatives within the PCRs.

**SOURCE:** Researcher Submission

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**Impact of relocation from home or institution to assisted living on adults with mild to moderate dementia (2014).**
SUMMARY
The population of Newfoundland and Labrador (NL) is aging at a rate faster than the rest of Canada. In 2011, 16% of the province was aged 65 or older (Statistics Canada, 2011) and this percentage is projected to increase to 20% by 2016 (Government of NL, 2008). It is well recognized that age is an irreversible risk factor for dementia. As the population ages, the prevalence of the population with dementia is expected to rise. In 2008, the first supervised care plus option for individuals with dementia was introduced in Western NL. The setting for this option is four single dwelling bungalows located in a residential neighborhood. Each bungalow, referred to as a Protective Community Residence (PCR), provides a home and support option for 10 individuals with mild to moderate dementia. The purpose of this paper is to present the results of a relocation study that focuses on changes in cognition, function, severity of dementia and behaviours within 6-8 weeks following the relocation.

SOURCE: Researcher Submission

Agitation and Aggression in LTC Residents with Dementia in Newfoundland and Labrador (2014 CHRSP Study)
Neena Chappell, Stephen Bornstein, Rob Kean

SUMMARY
Research Question: Other than use of physical restraints or prescription of psychotropic medications, what interventions, strategies, and/or practices have proven effective in preventing and managing agitation and aggression in long-term care residents with dementia?

In their initial description of the topic, Eastern Health officials framed the issue as follows:

“Aggression in residents with dementia poses both safety and quality care issues for all stakeholders in LTC (i.e. resident, family, nursing, allied health, etc.).... By understanding what triggers aggression and the strategies and interventions that work best to reduce aggression, we can achieve and maintain a safer environment for residents and staff in LTC.”

At the first project meeting, team members decided that the scope of the requested synthesis should be broadened to include evidence on prevention and management of two closely-linked behavioural symptoms of dementia: agitation and aggression. At the same time, because moderate-to-severe dementia is far more prevalent in LTC than in other senior care settings, the team decided to restrict the focus of the synthesis to LTC, rather than including personal care homes or assisted living facilities.

KEY FINDINGS
- Decision makers can be reasonably confident in the effectiveness of these interventions: music, staff training, reducing inappropriate use of anti-psychotics
- These interventions may be worth trying in LTC, though administrators would be well-advised to carefully evaluate their effects on the observed incidence of agitation and aggression: Animal-Assisted Interventions, Aromatherapy, Dance Therapy, Pain Treatment, Personalized Activities, Person-Centred Bathing, Simulated Family Presence
• Decision makers are cautioned against expecting that these interventions will, by themselves, yield significant reductions in agitation or aggression: Light Therapy, Special Care Units, Staff Case Conferences

SOURCE: www.nlcahr.mun.ca/CHRSP

Culturally competent (appropriate) health and long-term care services for older immigrants in small urban centers of Newfoundland (2013).

SUMMARY
Exploring interventions that enhance the health and healthcare access of ethno-cultural (radicalized) older adults in rural, very small and/or geographically isolated communities. In S. Koehn, & M. Badger (Eds.), Health care equity for ethnic minority older adults (pp. 55-67). Vancouver, BC: Gerontology Research Centre, Simon Fraser University.

SOURCE: Researcher Submission

Transitioning to a New Nursing Home: One Organization's Experience (2013).

SUMMARY
Restructuring of long-term care in Western Health, a regional health authority within Newfoundland and Labrador, created a unique opportunity to study the widespread impacts of the transition. Staff and long-term-care residents were relocated from a variety of settings to a newly constructed facility. A plan was developed to assess the impact of relocation on staff, residents, and families. Indicators included fall rates, medication errors, complaints, media database, sick leave, overtime, injuries, and staff and family satisfaction. This article reports on the findings and lessons learned from an organizational perspective with such a large-scale transition. Some of the key findings included the necessity of pre move and post move strategies to minimize negative impacts, ongoing communication and involvement in decision making during transitions, tracking of key indicators, recognition from management regarding increased workload and stress experienced by staff, engagement of residents and families throughout the transition, and assessing the timing of large-scale relocations. These findings would be of interest to health care managers and leadership team in organizations planning large-scale changes.

SOURCE: Researcher Submission

Age-Friendly Acute Care (2012 CHRSP Study)
Belinda Parke, Stephen Bornstein, Robert Kean, Meagan MacKenzie, Karen McGrath
SUMMARY
In March 2011, officials from Central Health in Newfoundland and Labrador asked the Contextualized Health Research Synthesis Program (CHRSP) of the NL Centre for Applied Health Research to identify and evaluate the best available research-based evidence on age-friendly approaches to acute care. Central Health recognized the necessity to uncover the barriers faced by the aging population in acute-care settings and to determine best practices for ensuring age-friendly acute care in the province. Given Newfoundland and Labrador's aging population, Central Health asked CHRSP to help them identify applicable tools and guiding principles that promote age-friendliness in acute-care facilities with a view to developing strategies that will reduce barriers faced by our aging population. Central Health suggested that the research evidence CHRSP could gather on this topic would help support decision making on enhancements/changes required in acute care environments as well as helping the health authority establish priorities in this area.

This research topic was initially suggested by Central Health and consultations with the province’s other Regional Health Authorities (RHAs) and with the Department of Health and Community Services (DHCS) revealed that the issue of caring for older adults in hospital was a high-priority across the province. CHRSP therefore assembled a project team that included senior officials from each of the four RHAs (Eastern Health, Central Health, Western Health and Labrador Grenfell Health), a consultant from DHCS, faculty members from Memorial’s School of Nursing and Faculty of Medicine with a background in acute care, and a project coordinator internal to the CHRSP program. Dr. Belinda Parke of the University of Alberta agreed to serve as Academic Team Leader.

KEY FINDINGS:

- Models of care show promise when concentrated on self-contained units possessing specialized gerontological expertise and interdisciplinary knowledge, but there is less evidence in our synthesis to suggest that these models can be delivered successfully outside of such units.
- Models of care delivered outside of specialized geriatric units require professional staff with enhanced training and skill sets, as well as careful reallocation of existing hospital resources.
- Models of care are more successful when they incorporate a collaborative interprofessional team approach, though the literature provides little direction as to the most effective ways to configure such teams.
- Geriatric assessment in its different variants is central to positive outcomes in inpatient hospital units by contributing to individual function and broader system outcomes such as shorter stays and fewer hospital readmissions.
- Enhanced discharge planning contributes to positive patient satisfaction and quality of life, and reduces hospital resource utilization.
- No single intervention demonstrated unqualified effectiveness across all settings, but there were some suggestions as to which intervention or program/service characteristics might produce positive effects for older patients in certain acute care settings.
- Relational aspects of care delivery such as good communication among staff, older patients, and family members, and effective teamwork with minimal conflict and stress are important.

SOURCE: www.nlcahr.mun.ca/CHRSP

SUMMARY
This hermeneutic phenomenological study provided insight into the experiences of family members of residents diagnosed with mild to moderate dementia who were relocated from institutional-based care to a unique assisted-living environment. 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. These findings have significant implications for care delivery and future program planning in caring for residents with special needs. Above all, we can conclude that client-centered care results in positive outcomes for residents and family members.

SOURCE: Researcher Submission

Palliative Care Needs of People with End Stage Renal Disease in Newfoundland and Labrador (2011)

Dr. Victor Maddalena, Community Health & Humanities, Dr. Brendan Barrett, Clinical Disciplines - Medicine (Nephrology), Dr. Fiona O'Shea, Clinical Disciplines - Oncology and Dr. Peter Wang, Epidemiology, Community Health and Humanities, Faculty of Medicine

FUNDING
NLCAHR Project Grant

SUMMARY
End stage renal disease (ESRD) is the irreversible loss of kidney function whereby the kidneys are no longer able to support life. The principal mode of treatment for patients with ESRD is dialysis and in very limited cases kidney transplants. Palliative care measures for ESRD patients include pain and symptom management, advance directives, resuscitation orders and, if they are receiving home dialysis, a home assessment of care needs. While such services are centrally important, at present their provision is ad hoc in many jurisdictions.

While there is research examining the palliative care needs of patients with ESRD receiving dialysis, there is a lack of literature examining the differences between the needs of patients who die at home and those who die in hospital, as well as rural/urban comparisons between the two. This study aims to answer the question: “What are the palliative care needs of patients with ESRD?” by interviewing caregivers of ESRD patients who underwent at-home or in-hospital dialysis and subsequently passed away. Interviews will take place in each of the four regional health authorities and will also include stakeholders, such as nurses, pastoral care and social workers.
The HRU will provide project coordination, including scheduling, facilitating some interviewing, transcription and analysis.

SOURCE: Yaffle.ca

**Eastern Health Adult Rehabilitation Gaps and Needs Assessment (2010)**
Dale Morgan and Dr. Michelle Ploughman, Rehabilitation Program, Eastern Health

**SUMMARY**
Specific goals of this project are:
- To conduct a scan of current rehabilitation services being offered by programs and agencies across the province; to conduct a literature search to explore the types of services being offered by other programs and agencies across the country and other models of rehabilitation service delivery;
- To complete a detailed analysis of the rehabilitation needs and gaps of Eastern Health and also of the province for inpatient tertiary rehabilitation. What and where are the unmet needs?
- To develop agreement on the gaps that exist, where we would like to be in the future based upon assessed needs and to create partnerships to help close gaps. It is hoped that this project will initiate dialogue and involve the consumers and caregivers in defining needs and determining priorities.
- To identify effective and efficient solutions to determined priorities;
- To make recommendations and develop a report summarizing this research and outlining a plan of implementation.

SOURCE Memorial University Research Repository

**Does a Dementia Unit Reduce Polypharmacy in a Veterans’ Pavilion? (2010)**
Dr. Roger Butler, Faculty of Medicine, Memorial University

**SUMMARY**
Objectives of the study: To determine the effect an institutional environmental change has on medication usage in a veterans’ pavilion. Secondary measures studied include nursing satisfaction as a result of this change and any measureable benefits to cognition in the demented residents pre vs post change as measured by sMMSE testing.

Research questions and methods to be used:
1. PRIMARY QUESTION: Does a Dementia Unit reduce polypharmacy in a Veterans Pavilion (Dementia Unit and regular long term care units)? If so;
   a. Does the usage of medications for the same residents with dementia differ between staying in a long -term care facility and after transfer to the dedicated dementia unit? This is the group of 14 ambulatory demented patients transferred to the dementia care wing. Their meds have been assessed pre move and will be assessed post move each quarter by the MD and pharmacist. (Quarterly med review is a nursing home standard in this province and is usual care across Canada.)
   b. Does the usage of medications for the residents without dementia differ in a long term care facility if the wandering dementia residents are present vs if they are absent?
c. Does the usage of medications for the residents with dementia differ in a long term care facility if the wandering dementia residents are present vs if they are absent?
d. If polypharmacy is reduced, which residents demonstrate the most in polypharmacy reduction? (Dementia unit residents or regular unit residents?)

2. SECONDARY QUESTION: How does the move into a Dementia Unit affect cognitive scores of the residents in all the affected units?
3. SECONDARY QUESTION: Is there a measurable impact on the overall nursing satisfaction when a Dementia Unit is established in a Veterans Pavilion?

SOURCE: NL-HARP Funding Application

Palliative and End of Life Care in Newfoundland and Labrador’s deaf community (2009)
Dr. Victor Maddalena, Community Health and Humanities

FUNDING
NL-HARP Seed Grant

SUMMARY
When compared to the general population, the Deaf community, as a social group, experiences poorer health status, lower levels of employment, lower socioeconomic status, lower levels of education and lower English literacy levels. Moreover, Deaf people tend to have fewer interactions with the health system, they seek care less frequently than the general population and their encounters with the health system are often characterized by communication difficulties, fear, mistrust and frustration. There is a dearth of research that examines the experiences of Deaf people at end of life (EOL) and the challenges they face in accessing culturally competent palliative care. Newfoundland and Labrador Association for the Deaf has identified access to palliative care as a significant concern for their community. The Provincial Healthy Aging Policy Framework identified palliative care and access to palliative care services (Goal 19) as a priority.

Our research will address this gap in knowledge by answering the following research question: What are the experiences of Deaf people living in Newfoundland and Labrador regarding EOL and palliative care services?

This qualitative research will explore the EOL and palliative care experiences of Deaf people living in St. John’s and surrounding communities through in-depth interviews with primary caregivers (family, friends, health professionals) who have cared for a Deaf person who is terminally ill or who has died. The findings from this pilot project will inform the development of culturally competent palliative care policy and guide future research related to palliative and EOL care for Deaf people.

SOURCE: NL-HARP Funding Application
Mobility & Aging

Watch your step: Staying active and on your feet as you age (2014)
Dr. Jeannete Byrne, School of Human Kinetics and Education

COLLABORATORS AND STUDENTS
Dr. Angela Loucks-Atkinson, School of Human Kinetics and Recreation
Sherry Kennedy, Eastern Health

FUNDING RESOURCES
Quick Start Fund for Public Engagement

SUMMARY
The School of Human Kinetics and Recreation engaged in a discussion with seniors and their caregivers about how best to prevent falls and maintain a healthy level of physical activity. Researchers from the school shared information and research based tips for fall prevention and activity maintenance while seniors shared their experiences and problems they face related to these issues. Research currently being performed at the school is focused on creating community based falls prevention programs. Design of effective falls prevention programming relies strongly on these programs meeting the needs of seniors in the province. Events such as this enable us to better understand the needs and issues faced by seniors related to falls prevention and physical activity. A very good discussion occurred between researchers and attendees. Participants agreed to relay information among their peers, and the discussion between researchers and attendees led researchers to take away a more focused idea of what seniors need for falls prevention.

SOURCE: Yaffle.ca

Fall Prevention for Seniors in Institutional Healthcare Settings (2014 CHRSP Study)
Vicky Scott, Stephen Bornstein, Rob Kean, Stephanie O'Brien, Susan Gillam

SUMMARY
Consultations with the province’s RHAs and with the DHCS revealed that falls prevention for older adults in institutional settings was a high-priority issue across the province. CHRSP personnel assembled a project team that included officials from three of the four RHAs, a faculty member from Memorial University’s School of Human Kinetics and Recreation, and the Executive Director of the Seniors Resource Centre of Newfoundland and Labrador. Dr. Vicky Scott, Clinical Associate Professor in the School of Population and Public Health at the University of British Columbia and Senior Advisor on Fall and Injury Prevention for the British Columbia Ministry of Health Services, agreed to serve as Academic Team Leader for the project, and Dr. Susan Gillam, Western Health’s Chief Executive Officer, agreed to serve as Health System Leader.

In their initial description of the topic, Western Health officials framed the issue as follows:

“According to the Canadian Institute for Health Information, falls were the cause of 57% of all injury related hospitalizations, and more than three quarters of all in-hospital deaths in those admitted for an injury. Accreditation Canada has identified a fall prevention strategy as a Required Organizational Practice with the goal to reduce the risk of injuries resulting from falls. Western Health has committed significant resources to the continued spread of a fall prevention program to reduce the number of falls as well as the severity of injuries resulting from falls. Quality and Risk Management leadership would use the results of this research to improve client/client outcomes and to enhance program delivery.”

At an initial project meeting, team members confirmed that the requested synthesis should focus exclusively on fall prevention for older adults in institutional – as opposed to community – settings. The synthesis ultimately included reviews of studies conducted in a range of institutional healthcare settings, including long-term, residential, intermediate, acute and sub-acute care facilities.

**KEY FINDINGS:**
There is LIMITED review evidence to indicate that multifactorial fall prevention interventions are effective in either care facilities or hospitals; however, this lack of conclusive research findings may be attributable to the complexity of these interventions and the difficulty of implementing them faithfully.

There is STRONG review evidence that daily combined doses of at least 700-800 IUs of vitamin D and at least 600 mg of calcium are safe and effective in reducing fractures in frail elderly living in care facilities.

There is FAIR review evidence that particular forms of balance training are effective in reducing falls among residential care populations.

There is FAIR review evidence that providing additional physiotherapy –i.e., more than seven sessions per week – in hospital rehabilitation wards may reduce risk of falling.

There is as yet LIMITED review evidence to support the use of medication review, environmental modification, staff education, or reorganization of care as stand-alone measures for preventing falls and fractures, but these interventions may be effective when offered in conjunction with other components of a multifactorial fall-prevention program.

The review evidence demonstrating hip protectors’ effectiveness in reducing the risk of hip fracture in residential or nursing care populations is UNCERTAIN, in large part because study participants’ acceptance of, and adherence to this measure has been consistently low.
Remote Fall Detection for Seniors (2013)
Mohamed Hossam Ahmed, Octavia Dobre

SUMMARY
Seniors’ falls can be considered as one of the most dangerous health risks. The Public Health Agency of Canada reported that:

- Almost 62% of injury-related hospitalizations for seniors are the result of falls.
- Almost half of seniors who fall experience a minor injury, and 5% to 25% sustain a serious injury such as a fracture or a sprain.
- Falls cause more than 90% of all hip fractures in seniors and 20% die within a year of the fracture.

This project aims to design, implement, and test remote real-time fall detection system for seniors, especially those who are at a high risk of falls due to cognitive or physiological diseases. The proposed system will use wireless wrist-band device to detect falls. When falls are detected by the sensors, the wireless sensor will send this information to the communication access point, which will send alerting messages to the healthcare givers for immediate intervention.

This novel fall detection system will help seniors feel more secure in their homes. Unlike currently available devices, this one does not require the senior to push a panic button. Instead it works using wireless sensors to detect falls. We believe that the system will help reduce the number of people who fracture their hips. It may decrease the costs of hospitalizations and it may reduce the number of people admitted to Long Term Care Facilities. Most importantly, it may improve the quality of life of all seniors and their healthcare givers.

SOURCE: NL-HARP Funding Application

Fall prevention in seniors in the greater St. John's area: a qualitative and quantitative examination of a fall prevention program. (2012)
Jeanette Byrne, Michelle Ploughman

FUNDING
NL-HARP Project Grant

SUMMARY
The proposed research has two objectives: 1) to examine the effectiveness of a fall prevention program offered for healthy, community dwelling seniors in the greater St. John's area 2) to examine seniors views of their fall risk and their understanding of the individual, interpersonal and environmental factors that determine whether they seek out and/or adhere to fall prevention initiatives. Objective one will be met by comparing fall risk and incidence between two groups – 1 exposed to a 10 week fall prevention exercise program and fall prevention education and the other exposed only to fall prevention education. Objective two will be met using qualitative methods. These will consist of interviews and focus groups aimed at developing a greater understanding of seniors’ perceptions of their fall risk and the prevention
of falls. This research is novel in that it is the first to address this issue using a NL population. Given the risk associated with falls and the rapidly ageing population of this province such research is essential if effective fall prevention strategies are to be developed. It is our intent that the findings of the proposed research be used to design fall prevention initiatives that could be implemented in rural areas through community health and/or telehealth. Given that the NL Provincial Healthy Aging Policy Framework has identified falls prevention as a key initiative, the proposed research will serve to provide sound evidence on which to advance this initiative.

SOURCE: NL-HARP Funding Application

Healthy Aging in Newfoundland and Labrador: An Epidemiological Study to Enhance Mobility and Participation in Society (2008)
Dr. Piezhong (Peter) Wang, Dr. Angela Loucks-Atkinson

FUNDING
NLCAHR Development Grant

SUMMARY
There are currently more deaths than births in Newfoundland and Labrador (NL). By the year 2036 the proportion of older adults in NL will be 30%, the highest in Canada. The urgency for coping with this population transition is recognized but actions have yet to be undertaken in NL. The government’s Provincial Healthy Aging: Policy Framework calls on an evidence-based approach to improve the wellbeing of older adults. Mobility disability is a major impediment to older adults’ well-being and participation in activities. In addition to its medical aspects, disability is also a costly social, public, and moral issue affecting individuals, families, and communities in our society. Disability associated with arthritis alone accounts for $15.3 billion in indirect costs to the Canadian economy annually. These costs will increase as the population ages. Thus, research on preventing disability and reducing its impact is of great importance. The purpose of the proposed study is to describe the current prevalence, determinants, and outcomes of mobility disability in the NL older adult population. This study reflects the NLCAHR’s priority research objective of “Population health and health services challenges of Newfoundland and Labrador.”

The World Health Organization endorsed the International Classification of Functioning, Disability and Health (ICF) in 2001 (Figure 1). ICF refers to mobility in terms of changes in body position and movement (e.g., carrying, walking). The level and consequences of mobility can be assessed with respect to capacity (i.e., ability to execute a task or action) and performance (i.e., what an individual can do in relation to her/his environment). In addition to establishing the prevalence of mobility disabilities, our study aims to conceptualize and operationalize the ICF framework by clarifying the determinants and outcomes of mobility disability in terms of functioning and disability (body functions and structures and activities and participation) and contextual factors (environmental and personal). Knowledge of how participation levels vary depending on contextual factors 10-14 is of importance for enhancing participation among older adults. Additionally, examining the determinants of participation in such
activities as self-care, household tasks, and community life has important implications for independence and wellbeing.

The aims of the study will be addressed through secondary data analyses using Statistics Canada’s Participation and Activity Limitation Survey (PALS 2006-2007). PALS is Canada’s national survey that gathers information about individuals whose daily activities are limited by a health-related conditions. Using structural equation modeling, we will model the prevalence, determinants, and outcomes of mobility disability in individuals 65 years of age and older in NL (n = 60,000).

Results of this study will have the following implications: 1) determination of the prevalence of mobility disabilities, 2) conceptualization of the factors that mediate and moderate the wellbeing of individuals living with mobility disabilities, and 3) identification of the factors that support participation in activities in order to lead to the development of community-based intervention strategies to support in-home and community mobility. Thus, this study will provide invaluable information for health policy to support mobility within the province. Additionally, this project will support the training of a graduate student in the field of gerontology. Dissemination of results will include 1) two conference presentations, 2) two peer-reviewed journal articles, and 3) hosting a half-day workshop to showcase the project to researchers and practitioners focusing on the health of the Atlantic Canadian older adults. Finally, this study will improve our future funding applications to CIHR’s Mobility and Aging initiative in order to develop a multilevel community-based quasi-experimental intervention study aimed at older adults with mobility disabilities.

SOURCE: NLCAHR Funding Application

Examining Gender Differences in Quality of Life and Health Outcomes after hip fracture in elderly Canadians (2005)
Dr. Piezhong (Peter) Wang, Dr. Sharon Buehler, Dr. Daniel Squire, Dr. Maria Matthews

FUNDING
NLCAHR Development Grant

SUMMARY
The purpose of the study will be:

- To determine if urban-rural differences exist in health related quality of life (HRQOL) and health outcomes in a people with hip-fracture in Newfoundland after controlling for potential confounding factors.
- To determine if gender differences exist in health related quality of life (HRQOL) and health outcomes in fracture patients after controlling for potential confounding factors.
- To examine longitudinal changes and determinants of HRQOL and health outcomes following hip fracture in men and women.

Hip fracture is often the most devastating outcome of osteoporosis. Despite recent improvement, HF remains a condition associated with excess mortality of 5-20%, disability, and economic cost in Canada. In comparison with women, men are less likely to have hip fracture and are at increased mortality rates after hip fracture. Although it generally believed that hip-fracture has profound impact on people’s physical, social, and psychological functions, little is known about the impact of hip-fracture on quality of
life. The research question whether hip fracture has gender differential effects on quality of life has not been addressed. It is also unknown whether the factors and mechanism for the changes in quality of life between men and women are different. Answers to these questions will help to reduce the impact of the adverse of hip-fracture and enhance the overall well-being for the people with hip fracture.

Hypotheses:

- In comparison with individuals from urban areas, residents of rural communities will have poor post-hip fracture HRQOL and EQ-5D scores after controlling for pre-fracture HRQOL state, co-morbidities, and other confounding factors; urban and rural individuals will have different patterns of change in HRQOL over time.
- In comparison with women, men will have poor post-hip fracture HRQOL and EQ-5D scores after controlling for pre-fracture HRQOL state, comorbidities, and other confounding factors.
- The changes of HRQOL overtime will be affected by gender and residence. In general, patients will exhibit a gradual improvement in HRQOL after the acute episode, but the improvement will be slower for men and people living in rural areas.

Study design and methods: A longitudinal study for a period of one year.

Examining rural/urban differences in quality of life in patients with hip-fractures will help us better understand the determinants and the underlying mechanisms of quality of life. This is a relatively unexplored area of study. Findings from the proposed study will shed light in effective interventions to enhancing HRQoL and well-being in patients with hip fractures. While this study will be Newfoundland based, it is expected have a broader implications in other parts of Canada as well.

SOURCE: NLCAHR Awards Funding Application
Doctoral Level Studies on Aging

Jennifer Woodrow, PhD Candidate Division of Community Health & Humanities Faculty of Medicine, Memorial University | jennifer.woodrow@mun.ca

FUNDING
NL-HARP Doctoral Dissertation Award 2015/ Doctoral Research Grant 2013

SUMMARY
Osteoarthritis (OA), the most common form of arthritis, imposes a significant economic and humanistic burden on society. As a result of the rapidly aging population and high prevalence of overweight/obesity in Newfoundland & Labrador (NL), two major risk factors for OA, it is anticipated that the number of OA cases in the province will significantly increase over the next few decades. Limited information is currently known about the number of people with OA in the province and how this translates to health care costs. Estimating this burden is vital for informing policy and practice for OA treatment/management and preparing for an increase in the number of cases.

Three epidemiological studies are being conducted using health care administrative data; this is the first time such an approach has been used for OA surveillance in the province. The NL Medical Care Plan (MCP) fee-for-service physician claims database and hospital Discharge Abstract Database (DAD) are used to identify OA cases from 1996-2009 using two case definitions: (1) Base case: at least 1 OA-related physician visit OR 1 OA-related hospitalization; (2) Standard case: at least 2 OA-related physician visits within 2 years and not on the same day OR 1 OA-related hospitalization. Provincial age-standardized, sex-specific OA prevalence and incidence are calculated for the study period. Rates are compared for both case definitions and time trends are examined. Rates are also calculated and compared at the Regional Health Authority, Census Subdivision, and rural/urban levels, and mapped using Geographic Information Systems software. Logistic regression is used to determine significant factors associated with OA frequency at the various geographic levels. Using DAD data, a case-control study is also being conducted to assess the burden of OA in terms of hospitalization costs and comorbidity compared to non-OA patients (controls). Cost is computed using average hospital weighted case value and resource intensity weights, and the Charleston Comorbidity Index is used to define comorbidity burden. Data is analyzed and compared for three different years (at 5-year intervals): 1999, 2004, and 2009.

SOURCE: NL-HARP Funding Application & Researcher submission
Using long-term aerobic exercise to modulate corticospinal excitability and intracortical networks in sedentary older adults (2015)
Nicholas Snow, Department of Physical Therapy, University of British Columbia

FUNDING
NL-HARP Doctoral Dissertation Award

SUMMARY
It is estimated that by 2036, Canadians aged 65 years or older will constitute 25% of the population. Aging is accompanied by declines in movement coordination, force output, and reaction time, which accelerate over time. These diminutions in motor performance threaten elderly individuals’ quality of life and increase the burden on caregivers, by heightening accident risks and reducing the capacity to perform activities of daily living. Evidence indicates that age-related motor declines are linked to changes in the motor cortex of the brain. Elderly individuals demonstrate reduced brain excitability and activity within brain hemispheres, making movement initiation and control more difficult. Hence, we require interventions to counteract age-related decrements in the motor cortex. New research shows that aerobic exercise can promote brain health in young adults – a single bout of aerobic exercise improves memory, enhances motor learning, and alters brain processes underlying these changes. Yet, it is unclear how these benefits extend to older adults; and long-term influences of exercise remain unknown. Thus, we will determine whether long-term aerobic exercise attenuates age-related declines in brain processes. We will explore how an 8-week aerobic exercise program affects the motor cortex of forty younger (<45-yr) and older adults (≥65-yr), using transcranial magnetic stimulation, a form of noninvasive brain stimulation. We anticipate the exercise program, consisting of of three 30-minute cycling bouts per week, positively affect brain excitability and activity within brain hemispheres. This research will potentially aid the design of exercise-based interventions to enhance brain health and prolong independence for elderly Canadians.

SOURCE: NL-HARP Funding Application

Age-Friendly Community Capacity Building in Newfoundland and Labrador (2014)
Dr. Elizabeth Russell | Memorial University | erussell@mun.ca

FUNDING
NL-HARP Doctoral Research Grant

SUMMARY/ PhD Study
Although the number of communities in Canada implementing age-friendly programming is growing, few programs have been evaluated. This PhD research project used social capital theory to study and evaluate age-friendly communities in Newfoundland and Labrador (NL), contributing to both an academic dissertation and a government policy document. Social capital was a useful moderating construct in studying the impact of age-friendly capacity building, as some communities experienced few challenges in bringing together community members, whereas for others, capacity building was an obstacle. A mixed methods approach included a) surveys of age-friendly committees, b) an analysis of census and health data, and c) qualitative focus groups or interviews. In total, 108 people and 24 communities participated, primarily including small, rural municipalities. Participants from communities
with a high life satisfaction rated significantly higher on social capital, and participants from communities with a high income per capita had a lower sense of community. Population change predicated sense of community, such that towns with population outmigration experienced a lower sense of community. Qualitative findings indicated community-level benefits of intergenerational programming and recognition of seniors’ concerns, and for seniors, age-friendly programming brought social, health and educational benefits. Outmigration increased the need for programming, but yet created a challenge for program development given volunteer burnout, typically addressed by capacity building and maximizing social capital resources. This evaluation will contribute to the sustainability of age-friendly communities and policy in NL, and academically, results will contribute a feasible methodological and theoretical approach to the limited body of Canadian age-friendly evaluation research.

**SOURCE: NL-HARP Funding Application & Researcher Submission**

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**Health Promotion through the Arts: Exploring New Methodologies in Research; Creative-Arts Workshops for Caregivers of Partners with Dementia (2013)**

Megan Jane Morrison, PhD. Candidate, Community Health and Humanities, Faculty of Medicine, Memorial University

**FUNDING RESOURCES**

Medical Research Fund

**SUMMARY**

The researcher is welcoming participants who have partners with dementia or Alzheimer’s Disease who are interested in participating in a single interview and a series of three creative arts skill-building workshops as a part of my research. I am able to accept participants from Central Newfoundland and in St. John’s. Transportation and respite reimbursement, workshop materials, and nutrition during the workshop will be provided.

She is looking for ways to be creative in my approach to research and research participants and more specifically to finding ways of supporting caregivers. She is interested in art and music and in the impact that art and music can have on healthy and positive experiences of aging. She is also the granddaughter of someone with dementia. She seeks to find a way to strengthen the tools caregivers already have and improve their capacity to cope and even enjoy their relationship with their partner at home.

Her project looks at the ways we use creativity in art and also in communicating. This project is aimed at giving people the opportunity to recognize their own creativity, share their experiences, and develop new skills and possibly new community connections.

The research question is:

**In the context of elderly caregivers of partners with dementia, what is the impact of creative activity on individual health/well-being, confidence in their caregiver role and experience of communication within their relationship?**
How age-related hearing loss impacts memory for medical adherence in the older adult (2012)
Roberta Didonato

FUNDING
NL-HARP Doctoral Dissertation Award 2012/ Doctoral Research Grant 2011

SUMMARY
An important component of healthy aging is the ability to manage one's own medical care. This involves adhering to a plan of treatment, including taking prescription medications as directed. The aging population is 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. There is some evidence that hearing loss is related to, and may actually cause decreased memory performance (Cervera 2009; Surprenant, 2007). However these authors did not investigate the specific nature of the hearing loss. Since age-related hearing loss is the third most prevalent chronic medical condition among older adults, determining its role in working memory for medical adherence is highly relevant. In the present project, recall of complex prescription instructions presented in various noisy conditions will be compared for older adults with particular configurations of hearing loss to younger adults without hearing loss. Different enhancements, including quiet conditions and expanded and clear speech will be tested to see if they result in better performance for both groups.

The objectives of this study are to investigate how age-related hearing loss contributes to memory deficits and whether an enhanced auditory message facilitates memory. This will help identify those elderly patients at risk for medical non-adherence and provide key insights for future evidence-based interventions.

SOURCE: NL-HARP Funding Application

Jennifer Woodrow, Community Health & Humanities

FUNDING
NLCAHR Doctoral Fellowship
SUMMARY
Over the last 30 years, the population of Newfoundland and Labrador (NL) has aged faster than any other province in Canada. This is due to an increase in life expectancy, a decrease in birth rate, and an increase in out-migration. It is projected that 30% of the people in NL will be over age 65 by 2036, the highest in Canada.

Epidemiological evidence consistently suggests older age is the strongest factor for many chronic health conditions and disability. Thus NL can expect an increasing number of people with chronic health conditions and disability in the next 20-30 years. In addition to its medical aspects, chronic health conditions and disability are also a costly social, public health, and moral issue affecting individuals, families, and communities in our society. Therefore, reducing the impact of age-related health problems and disability is of great importance.

The objectives of the proposed study are to describe the prevalence and patterns of major chronic health conditions and disabilities in NL; to examine how demo-socioeconomic factors affect these chronic health conditions and disabilities; and to predict how these chronic health conditions and disabilities change as the NL population ages and the possible social and economic impact over the next 30 years.

Data for this study will mainly come from the Canadian Community Health Survey, the Canadian Participation and Activity Limitation Survey, and the Canada Census and Statistics Canada Population. Descriptive and analytical methods will be employed. Statistical modeling and simulation will be used to address the three objectives.

Results from this research will be relevant to decision makers involved in program planning, health education, and policy development as it pertains to the prevention and management of age-related chronic health conditions and disability.

SOURCE: NLCAHR Awards Funding Application

Balance Control in Elderly Obese Individuals (2010)
Grant Handrigan, Médecine Sociale et Préventive, Université Laval

FUNDING
NL-HARP Doctoral Dissertation Award

SUMMARY
Balance control and equilibrium are important aspects of daily living. In order to control our balance it is necessary to obtain and process information from our environment, particularly our support surface characteristics. Our sensory systems collect this information, process it and then our musculoskeletal systems effect the necessary changes to maintain balance. Obviously, these systems must function properly or a fall or stumble may occur. Elderly individuals have increased postural sway, particularly those that are weak and have sensory deprivations (reduced vision, plantar foot sensation, etc.). Similarly, obese individuals are also less stable than normal weight individuals, suggesting that they also have difficulty controlling balance even if they do not have the same sensory issues as elderly people. This is possibly caused by a mechanical constraint associated with the extra mass (i.e. increased mass places more demands on the muscular system), as well, it may also be caused by reduced sensitivity in
the plantar sole of the feet; so far this remains unknown. Changing demographics in Newfoundland and the rest of Canada indicate two major things; our population is getting older and increasingly overweight. For these reasons I am interested in assessing the balance control and the plantar sensitivity of elderly obese individuals. If we combine the added mechanical constraints of obesity with the reduced sensory capabilities that is common with aging we stand to identify the most at risk group for falls and stumbles in our population and also to possible identify why.

**SOURCE: NL-HARP Funding Application**

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### Factors Associated with Selecting Gerontological Social Work as a Career (2010)
Suzanne Brake, Director, Aging and Seniors Division, Government of NL

**SUMMARY**

As the older population increases in Canada, so will the need for social workers to deliver services to this population. Research in the area of social work as a career choice, and recruitment of students into gerontological social work, has highlighted students' mixed attitudes and lack of knowledge about older persons, as well as a low priority of working with older persons.

As minimal research has explored the reasons why students choose gerontological social work as a career, the purpose of this research is to gain a beginning understanding of why a small number of social work students are interested in working with older adults. This research proposes to explore the factors associated with Canadian social work students' interest in selecting gerontological practice as a career. A purposeful sample of social work students from Memorial University of Newfoundland, St. John's, Newfoundland and Labrador, and the University of Calgary, Calgary, Alberta represent shifting Canadian provincial demographics with Newfoundland and Labrador identified as an "aging" province and Alberta a "young" province.

Results of in-depth interviews have been analyzed using a classic grounded theory approach. In accordance with a classic grounded theory approach the research question will be broad and general with development of specific questions based on results of data collected through individual and collective interviews.

The general research question underlying this study is: What factors are associated with selecting gerontological social work as a career? The aim of this study is to develop a theory explaining a basic social process - interest in working with older adults. This study will also contribute to an under-developed body of knowledge in this area especially within the Canadian context. It is anticipated that results of this study will be used in recruitment, admission and training of students with interest in gerontological social work. Further, it is anticipated that the results of this study will have interprofessional /interdisciplinary implications.

**SOURCE: Yaffle.ca**
Gail Wideman, School of Social Work, Memorial University (gwideman@mun.ca)

FUNDING RESOURCES
Research assistantship from the Natural Resource Depletion and Health Project SSHRC and the National Health Research and Development Program.

SUMMARY
The capacity for older residents to age in place in rural Newfoundland and Labrador has been profoundly affected by out-migration and the resultant dismantling of traditional networks of support. Using a case study design, this qualitative research project asked what we can learn from residents in one rural community that will strengthen rural social work practice and policy with older persons. More specifically, the research asked about the intermediate resources needed to age in place, their maintenance in the context of depopulation, and about the role of social work policy and practice with older persons in supporting intermediate resources.

Described as an emerging construct, intermediate resources are defined as non-intimate, non-professional helping encounters that assist older persons to maintain or restore their capacity to remain in their homes and communities despite health or mobility restrictions. Intermediate resources are operationalized as activities that are provided by local organizations, that are user-driven, and that provide assistance with Instrumental or Advanced Activities of Daily Living.

The theoretical framework links key principles of community development and critical gerontology – the support and strengthening of existing resources, the creation and facilitation of associations among resources, and the empowerment of individuals and communities to identify their own needs and to define solutions. The data from Leary Harbour demonstrate the relevance of these theoretical constructs, and the corresponding concepts of partnership, participation and self-organization, to the development and maintenance of intermediate resources.

The study contributes to strengthening social work practice and policy with older persons by providing a framework for assessing the availability and effectiveness of intermediate resources and by bringing forward information about the benefits of, and challenges to, the provision of intermediate resources. The study also identifies social work practices relevant to the development and maintenance of this level of support in rural communities. The practices themselves are not new but are foundational principles of community development in general and of locality development theory in particular. This research highlights the need to return these considerations to the forefront of professional social work education and practice.

SOURCE: Researcher Submission
Muscle fatigue resistance in old and very old women (2009)
Geoff Power, Department of Kinesiology, University of Western Ontario

FUNDING
NL-HARP Doctoral Dissertation Award 2009

SUMMARY
Older adults experience an age-related reduction in muscle mass and strength, especially in the lower limbs, this condition is known as sarcopenia. This is due to changes in the muscle and alterations to the neuromuscular system. One adaptation associated with old age is stiffer muscle structures and a lengthened contraction time. Thus, older adults appear to have an advantage for movements in which the muscle lengthens, known as eccentric muscle contractions.

There is a plethora of literature on muscle function of younger and older adults focusing on strength and power. One area, which has not received as much attention, is the preservation of muscular endurance with old age. Moreover, most studies overlook muscle endurance as a potentially important link to functional independence. Activities of daily living require intermittent submaximal contractions rather than maximal efforts. Therefore, muscle endurance may be a more practical measure, when considering activities of daily living.

Thus, it is the objective of this research to quantify fatigue resistance in the old (>65) and very old (>85). The very old population are of particular interest due to the rapid loss of motor units (the group of muscle fibers and the motor nerve innervating them) after the fifth decade of life. This cohort will allow us to elucidate any differences in fatigue resistance of elderly adults in their sixth through ninth decade of life. Secondly, this work aims to link increases in strength to improvements in functional tasks of daily living.

The results from this project will not only help answer fundamental questions in the fatigue literature, but also highlight specific interventions to improve functional tasks of daily living. Undoubtedly, this will result in; reduced morbidity, enhanced self-efficacy, and independence into very old age.

SOURCE: NL-HARP Funding Application

Mental Status in the Hospitalized Elderly (1992)
Olga Heath, Doctoral (PhD) Thesis, Memorial University, Community Health and Humanities

SUMMARY
The purpose of this study was to assess the impact of hospitalization on mental status in the elderly. To this end subjects were given mental status exams in hospital and after discharge, with a retrospective assessment of functioning before illness obtained from an informant using the Informant's Interview section of the CAMDEX (Roth, Tyme, Mountjoy, Huppert, Hendrie, Verma, & Goddard, 1986). Other measures that were taken include diagnosis, number of medications in hospital and at home, and the likelihood of those medications having an effect on mental status. A comparison was made of performance on the mental status exam (M.M.S.E., Folstein, ,Folstein, & McHugh, 1975) in hospital and at home. As well, multiple regression analyses were used to determine which factors more strongly predicted performance on the M.M.S.E. on both occasions. -- The results reveal that 52% of the population interviewed scored below the accepted cutoff of 24/30 on the M.M.S.E.. This is an important
finding given that those subjects who were delirious were eliminated from the study. Those subjects who scored in the impaired range on the M.M.S.E. in hospital did significantly better at home (p < .000). There was no such difference for the unimpaired group suggesting that the finding is not the result of a practice effect. The regression analyses show that mental status in-hospital and post-discharge was most strongly predicted by the CAMDEX pre-hospitalization measures. The amount of variance explained post-discharge was greater than that explained in hospital. The CAMDEX Informant's Interview subscales which best predicted performance, both at home and in hospital, for the group scoring in the impaired range, were the Activities of Daily Living and Paranoia.

SOURCE: Memorial University Research Repository
APPENDIX A: NL-HARP Funding Recipients

The following research has been funded under the NL Healthy Aging Research Program:

2015

Project Grants:

Dr. Marshall Godwin, Primary Healthcare Research Unit
“Descriptive analysis of the health and health services utilization of very elderly Newfoundlanders”

Dr. Rick Audas, Community Health and Humanities
“Chronic pain and aging in Newfoundland and Labrador: a quality of life and healthcare utilization profile”

Dr. Roberta Didonato, Department of Psychology
“Do visual enhancements of healthcare instructions improve learning and memory performance in older adults?”

Seed Grants:

Dr. Caroline Porr, School of Nursing
“Developing and testing a dialect-sensitive and culturally-appropriate diabetes educational tool for older adults of Rural Newfoundland and Labrador”

Dr. Marilyn Porter, Department of Sociology
“Grandmothers on the move: older women immigrants and healthy aging”

Doctoral Dissertation Awards:

Jennifer Woodrow, Community Health and Humanities
“Osteoarthritis in Newfoundland and Labrador: an examination of prevalence, incidence, comorbidity, financial burden and accessibility to care”

Nicholas Snow, Department of Physical Therapy, University of British Columbia
“Using long-term aerobic exercise to modulate corticospinal excitability and intracortical networks in sedentary older adults”

2014

Project Grants:

Dr. Rick Audas, Community Health and Humanities
“Looking Back: An examination of the impact of social isolation on senior’s health in Newfoundland and Labrador”

Dr. Sue Anne Mandeville-Anstey
“What is it like for aging nurses to live and work with cardiovascular disease in the province of Newfoundland and Labrador?”

Master’s Research Grants:
Meng Wang
“Body Mass Index Developmental Trajectories for older Canadian population: evidence from a national population health survey”

Amanda George
“The effect of physical activity of cognitive functioning and quality of like in older adulthood”

Doctoral Research Grants:
Elizabeth Russell, Department of Psychology
“Age-friendly community capacity building in Newfoundland and Labrador”

2013

Project Grants:
Dr. Roger Butler, Faculty of Medicine
“Telegeroontology: a novel approach to optimize health and safety among people with dementia in Newfoundland and Labrador”

Mohamed Hossam Ahmed, Engineering and Applied Science
“Remote fall detection in seniors”

Data Inventory Reports:
Dr. John Knight, NLCHI
“Data inventory for healthy aging research in Newfoundland and Labrador”

Master’s Research Grants:
Zhi Chen, Community Health and Humanities
“Survival patterns in colorectal cancer and the role of socioeconomic status”

Yanyan Zhang, Community Health and Humanities
“Prevalence and spatial distribution of osteoporosis and related fracture risk in the aging population of Newfoundland and Labrador”

Doctoral Research Grants:
Jennifer Woodrow, Community Health and Humanities
“Osteoarthritis and delivery of care in Newfoundland and Labrador”

2012
Project Grants:

Dr. Jacqueline Hesson, Faculty of Education
“Cytomegalovirus immune risk phenotype and cognitive functioning in the oldest old”

Dr. Jeanette Byrne, School of Human Kinetics and Recreation
“Fall prevention in seniors in the greater St. John’s area: a qualitative and quantitative examination of a fall prevention program”

Dr. Guangju Zhai, Faculty of Medicine (Genetics)
“Metabolomics of aging – identification of metabolic biomarkers of aging”

Seed Grant:

Dr. Peter Wang, Community Health and Humanities
“Assessing dietary intake and adequacy of elderly residents of Newfoundland – a pilot study”

Master’s Research Grants:

Elizabeth Wallack, Community Health and Humanities
“The impact of a Skype-delivered dementia caregiver intervention on caregiver burden”

Lin Liu, Community Health and Humanities
“Dietary intake and eating patterns of elderly people in Newfoundland and Labrador”

Doctoral Dissertation Award:

Roberta Didonato, Department of Psychology
“How age-related hearing loss impacts memory for medical adherence in the older adult”

2011

Project Grants

Dr. Shabnam Ashgari, Primary Healthcare Research Unit
"Exploring the Feasibility and Process of Establishing an Online Spatio-Temporal Information System for Age-related Chronic Disease in Newfoundland"

Master's Research Grants

Jing Wang, Community Health and Humanities
“Examining the difficulties of accessing health care among aging Asian immigrants”
Doctoral Research Grants

Roberta Didonato, Department of Psychology
"How age-related hearing loss impacts memory for medical adherence in the aging population"

Doctoral Dissertation Awards

Grant Handrigan, Médecine Sociale et Préventive, Université Laval
"Balance control in elderly obese individuals"

Post-Doctoral Fellowships

Annie Jalbert, Department of Psychology
"Episodic memory binding as a preclinical diagnostic tool for mild cognitive impairment and predicting conversion to Alzheimer's disease"

2010

Project Grants

Dr. Roger Butler, Faculty of Medicine (Family Medicine)
"Does a Dementia Unit Reduce Polypharmacy in a Veterans Pavillion?"

Dr. Michelle Ploughman, Eastern Health
"Health, Lifestyle and Aging with Multiple Sclerosis: Building an Evidence-Based Self-Management Program"

Seed Grants

Dr. Les Cake, Department of Psychology
"Building an Evidence-Based Framework for the Development of a Newfoundland and Labrador Centre on Aging"

Faculty Course Buyout Grants

Dr. Lan Gien, School of Nursing
"Working Late: Strategies to Enhance Productive and Healthy Environments for the Older Workforce - the Canadian Context"

Master's Research Grants

Jennifer Hulbert, School of Human Kinetics and Recreation
"Physical Activity: the Role of Biopsychosocial Factors in the Lived Experiences of Older Adults with Fibromyalgia Living in Rural and Urban Newfoundland"
2009

Project Grants

Dr. Marshal Godwin, Primary Healthcare Research Unit
"Assessing criterion validity and developing population norms for the Simple Lifestyle Indicator Questionnaire (SLIQ) in the elderly"

Seed Grants

Dr. Wendy Young, School of Nursing
"Development of an age-friendly communities research team"

Dr. Victor Maddalena, Community Health and Humanities
"Palliative and end of life care in Newfoundland’s deaf community"

Master's Research Grants

Fang Liu, Community Health and Humanities
"Measuring health status of aging population with disabilities in Newfoundland and Labrador"

Ellen Haskell, Department of Sociology
"More sunsets: The social organization of the RV sub-culture"

Doctoral Dissertation Awards

Geoff Power, Department of Kinesiology, University of Western Ontario
"Muscle fatigue resistance in old and very old women"

Post-Doctoral Fellowships

Jared Clarke, Faculty of Medicine
"Healthy aging with a chronic neurological disorder - A profile of community-based programs"
APPENDIX B: How to submit your research/corrections for this compendium

If your research belongs in this compendium, we will add it for you. If it is already included in the compendium but requires an update or edits, please send the following, preferably by email:

- research category
- project title and date
- authors
- source of funding
- project summary/ abstract
- links/ citation for publications where available

to:

Rochelle Baker, Communications and Partnerships Coordinator
The Newfoundland and Labrador Centre for Applied Health Research
95 Bonaventure Avenue, Suite 300
St. John's, NL A1B 2X5
Switchboard: 709.777.6993 Fax: 709.777.6734
Rochelle.baker@med.mun.ca