

ANNUAL REPORT

2015

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DIRECTOR'S REPORT

STRATEGIC HIGHLIGHTS

A number of new activities highlight our commitment to the health and wellbeing of our community and the education of our students and community researchers. We began developing the Centre for Cognitive Health as a central hub for assessment, education, and counselling related to neurodegenerative disorders on Vancouver Island. This initiative is a collaborative venture to develop a model for improved assessment, treatment, and intervention research related to memory impairment and neurodegenerative disorders.

Our new colloquium series, *Optimizing Aging and Health: Methods and Applications*, provided cutting-edge seminars and expert panels to support our new collaborative initiatives with Island Health and CanAssist. Technology and aging, biomarkers, and patient-reported outcomes were emphasized in this series. In partnership with the Department of Psychology we held an undergraduate seminar discussing the latest aging and health research and "translating" this work into brief, clear language summaries.

FINANCIAL HIGHLIGHTS

We have been successful in obtaining Canadian Institutes of Health Research (CIHR) and industry-partnered research funding to better meet the needs of those requiring complex care that will lead to the improvement of treatment and care. We are especially proud of our recently funded project, *Evaluating the Effectiveness of Integrating Patient Reported Outcomes and Assessments in the Care for Seniors with Complex Needs (e-PRO)*, for four years. This project brings together academic researchers, health care practitioners and businesses to explore and develop best practices to reduce hospital readmissions using electronic monitoring.

OPERATIONAL HIGHLIGHTS

We continue to engage with the Vancouver Island community to help direct our activities, be involved in our research, and help us promote and share evidence-based research. We made good progress towards the development of tools for general health and lifestyle, cognitive assessment, and health monitoring.

LOOKING AHEAD

A long-term objective of our research is to improve our ability to unobtrusively monitor health factors and detect important early health changes due to chronic disease and aging. Earlier detection would allow timely intervention to prevent avoidable health deterioration or loss of independence and responds to the need to measure individuals more frequently than once every few years. We are developing, and plan to continue developing, new relationships in the community to build strong research alliances with colleagues and in partnership with health authorities and industry.

Scott Hofer, Director July 20, 2016

OVERVIEW

We recognize that healthy aging is a lifelong process, with changes occurring across the life span rather than just in later life. Our research reflects this. We focus on a broad description of health that includes social, psychological, environmental, and cultural contexts in which people live, as well as the organizations responsible for their health. This is why our diverse research looks at things like the changing needs in physical activity, driving, care facilities, end-of-life, and vision.

RESEARCH

We undertake and support innovative and transformative aging-related research. We do this to provide better information in a timely manner. Information can change the diagnosis and outcome of an individual's care. Whether you want to continue to safely drive or more quickly identify changes in physical health, research provides the evidence to develop tools and modify public policy.

We focus on the longitudinal and cross sectional study of clinical health, population health, and health services research in order to improve the health and quality of life of older adults. What does this mean? In some cases, we use research findings to provide key recommendations for action on chronic disease management and integrated palliative care. In others, we use them to create new technology that gathers and provides information to improve quality of care. Our aim is to help families, health care providers, and policy makers in meeting the challenges and potentials of maintaining a healthy aging society.

How do we do this? We facilitate communication and collaboration among scholars, practitioners, policy makers, and older adults. We mobilize knowledge on aging and health with scientists, practitioners, and the public. And, we promote the translation of research findings into interventions, services, products, and policies relevant to older adults.

TRAINING

None of this work can be done without training the next generation of skilled research personnel. We support and assist the work of post-doctoral, graduate, and undergraduate students within the areas of aging and health. Training opportunities can include travel grants to conferences, working as research staff on projects, special sessions on conducting research, as well as occasions to meet with peers and mentors.

Supervising students, particularly at the graduate and post-graduate levels, and providing scholarships continues to be important to the Centre. When we have the opportunity, usually through external research funding, we have provided travel grants and support to attend national and international conferences. In 2015, supporting disciplinary and interdisciplinary training opportunities in research moved from an ad hoc process to annual events.

Our annual Pecha Kucha, the colloquium series, and the Snapshot course are three examples of ongoing – and successful – training events that began in 2015. Adding these training possibilities to our first multidisciplinary course on aging and film provides learning outcomes for undergraduate, graduate, and postdoctoral students, along with researchers at UVic and in the community, and others interested in aging and health research.

Adding to these opportunities is one of our goals for 2016. Integrating training with knowledge sharing will allow us to bridge relationships with researchers, students, staff, and community members. It will also provide an avenue to maintain a video library showcasing the research expertise available on campus and through our research partners.

RESEARCH, STUDENTS AND THE COMMUNITY

PROJECTS

Many projects were underway at the Centre on Aging in 2015. Here we give a description of one project, followed by highlights of several others. This list is representative, but not exhaustive.

The ability for people to be cared for and to die at home is heavily dependent on the efforts of family caregivers. Even where people receive palliative home care services, the likelihood of dying at home is dramatically reduced if family caregivers are unable to provide care. While normally willingly undertaken, caregiving at end-of-life entails considerable cost for primary family caregivers and the wider family, including emotional, social, financial and physical cost. Caregiving also has considerable age-related implications: not only are the majority of those with terminal illnesses older adults, but a large majority of family caregivers are older adults themselves.

Assessing family caregivers support needs at the end-of-life has been recognized as a high priority for both clinical and policy intervention.

"Family caregivers have much to contribute to our health care system however caregivers aren't always good at expressing their own needs for support and the impact that caregiving has on their quality of life." Supporting Family Caregivers of Seriously Ill Patients at Home² is a study that focuses on helping family caregivers identify their needs by assessing caregivers who support seriously ill family and friends at home. Caregivers are invited to participate by their home care nurse and are asked questions every month. This study is meant to propel research and enhance practices that support quality of life. Importantly the study is designed to help legitimise family caregiver needs for support from their communities and the healthcare system and to make such needs "visible" and explicit to practitioners working within home care.

Other current and proposed research undertaken by the Centre's Affiliates is showcased by the following activities:

- Unified Vancouver Island Cohort Research Platform. This research cohort brings together the collective UVic-based research capacity, clinical researchers, and care providers at Island Health, community members, and patient groups, with linked longitudinal clinical and treatment data. This dynamic cohort will be the nexus of innovation in the development of novel diagnostic and activating behavioural interventions; for enabling within-person study designs; and for applying advanced and emerging analytics to improve individual health and health care through effective regional, national, and international partnerships.
- Frail Elderly. This research alliance is comprised of interested stakeholders in the issues and care of frail seniors. The Centre supported a hosted Technology Evaluation in the Elderly Network (TVN) MindMerge meeting (November 10, 2015) in Victoria

¹ Comment by Kelli Stajduhar, principal investigator.

² Funding for this project has been provided by the Technology Evaluation in the Elderly Network (TVN) (now the Canadian Frailty Network (CFN)) and the Canadian Cancer Society Research Institute (CCSRI). The co-principal investigators are Kelli Stajduhar (UVic) and Richard Sawatzky (Trinity Western University).

- **Technology, Aging, and Seniors Care**. A research alliance group interested in the development and use of technology to support the care and well-being of seniors. There are several funded and active projects.
- Health Informatics, Electronic Health Record (EHR) Data Analytics and Linkage. Researchers are currently involved in understanding how health data is collected, stored, processed, and communicated for developing and supporting best practices as well as for clinical decision making purposes. A I research group is being advanced in support of analytics and training specific to the use of Island Health data (as well as LifeLabs and PharmaNet records) and linkages with external survey data.
- End-of-Life Care. Researchers and interested stakeholders examine issues and conduct research related to palliative and end-of-life care. An example is the project listed above, Supporting Family Caregivers of Seriously III Patients at Home.
- Adaptive Neurocognitive Assessment and Predictive Analytics. The development and validation of sensitive and efficient clinic- and home-based neurocognitive assessment is fundamental to creating capacity to serve Vancouver Island's aging population. A hierarchical test blueprint will guide development of adaptive tests, with calibration and validation of items and tests within the Vancouver Island cohort. Initial developments are supported currently by a CIHR eHealth Innovation Partnership Program (eHIPP) grant.
- Centre for Cognitive Health. This initiative could lead to early detection and innovative interventions to reduce the impact of dementia on individuals and society. In 2015 we began developing a strategy for a physical and virtual clinic in which mobile health (mHealth) tools and state-of-the-art assessments and approaches could be used to track within-person variation and change in neurocognitive function over time. We are currently developing a strategy and donor funding.
- Music, the Arts, and Wellness. Our colleagues, including members of the Lafayette String Quartet, are very interested in engaging in this research. Other researchers associated with the Centre (in music, art and theatre) continue to develop research programs.
- **Health Interventions and Adherence**. Modifiable health behaviours and sustained interventions to improve health are the hallmarks of this research group and their area of expertise.
- Integrative Analysis of Longitudinal Studies of Aging and Dementia. This interdisciplinary research program, funded by the American National Institutes of Health (NIH), focuses on replication of research activities and includes international, national, and local Vancouver Island studies.

STUDENTS

The student affiliate program was started in 2012 where, with the support of a faculty member who is familiar with their work, a UVic student can become an affiliate for the duration of their degree. Our student affiliates are studying geography, health information science, nursing, psychology, public administration, public health and social policy, social dimensions of health, social work, sociology, and studies in policy and practice as well as those working towards interdisciplinary degrees. These students might have different research interests, but they all share a common passion towards making a positive change in the world. They not only recognize the need for change when it comes to issues within the health care system or issues like ageism, but they are also determined to make these changes.

Linda Outcalt, one of our student affiliates, questioned the "linear progression attitude" towards life when she decided to go back to school 26 years after finishing her undergraduate degree in Photographic Arts. Her concern in removing the intergenerational gap and existing ageism in modern society developed when she felt invisible among her young peers and personally experienced the damaging effects of ageism as an older female graduate

student. Linda's research focuses on identifying the negative effects of ageism from individual interaction to long-term care policy. She is interested in categorising the perceptions and influences of western media and popular culture that foster damaging images and information on aging and older people that perpetuate ageism. She believes that the issue of ageism can be removed or its effects can be mitigated through intergenerational engagement. For Linda, the motivation to pursue a doctoral degree comes from an awareness that ageism affects everything having to do with older adults, from intergenerational relationships to long term care policy.

Whether it's removing the stereotypes of aging, understanding the aging population, developing a better health care system or end of life care, our students are highly committed to improving the quality of life of our aging population. Drew Halliday noted that science is ever-changing and our understanding of mental health is still at the surface. Drew wants to understand how and why we see the world the way we do, focusing on the similarities and differences between people. After travelling and working in Africa and Europe, he returned to the west coast to pursue a master's degree in Clinical Neuropsychology. Drew is currently studying the brain-behaviour relationship and how early lifestyle is associated with later life. His study focus on identifying the early biomarkers of dementia, which could help predict dementia risk and could help in forming effective interventions or reducing risk of developing dementia.

Chantel Mayo, like Drew, is also interested in studying early brain changes; however, her focus involves neuroimaging. She is studying early brain changes in white matter for people with Alzheimer's disease and how these are related to cognitive ability. While highly dedicated to her research, Chantel always likes to embrace new opportunities and feels like she is still evolving.

Like many other researchers, health care policies have been a long-standing research interest for many of our student affiliates. Erin Donald realizes the need for positive changes in the health care system and is striving to influence health care policies. She is motivated to improve the quality of life of terminally ill patients as she pursues a PhD in nursing. Erin is interested in helping people with persistent mental illness who require palliative care.

Kristen Silveria, also pursuing Clinical Neuropsychology, understands the prevalence of background music; whether someone is riding the bus, working out or reading a book; has an impact on attention. She is using psychophysiological methods such as measuring heart-rate-variability to see how physical arousal mediates the relationship between music and attention. She wants to know if specific types of background music work as an environmental tool to enhance attention in older adult's daily life.

Our student affiliates are a mosaic of different faculties and areas of interest. They understand the aim of the Centre is to work towards building a healthy and productive society through interdisciplinary research in order to find real-life solutions to challenges faced in later life and are actively involved in finding such solutions. The Centre supports their individual research by assisting them with participant recruitment, providing space to conduct their study, offering scholarships, delivering training on thesis presentations, and planning networking opportunities.

The Centre also provides a place for leading edge researchers to connect with one another, and promote innovations by presenting their research to the community. Despite having demanding schedules, our students take advantage of the West Coast trails and beaches making grad school part of their lifestyle. According to Erin, it is very important to find the right home as a professional since it is not only about putting food on the table but doing something you can enjoy. Chantel advises enjoying every moment and Kristen believes in celebrating every small achievement along the way whether it's finishing a course, a semester or getting approval on a research proposal. Grad school is a big achievement in itself and getting there is not easy. Drew recommends taking a risk and not being shy when it comes to networking and making connections. Linda put forward a great example about challenging societal norms and proves it's never too late to follow your passion.

New Student Affiliates in 2015

- Erin Donald, Nursing
- Drew Halliday, Psychology
- Kristin Silveria, Psychology
- Amber Adhal, Social Dimensions of Health
- Paule Bellwood, Health Information Science
- · Ryan Habibi, Computer Science
- Jamie Knight, Psychology

Scholarships Awarded in 2015

- Neena L. Chappell Scholarship, \$1,100: Linda Outcalt (supervisor Neena Chappell, Sociology)
- David Chuenyan Lai Scholarship, \$800: Erin Donald (supervisor Kelli Stajduhar, Nursing)
- Alice Lou-Poy Scholarship, \$675: Chantel Mayo (supervisor Jodie Gawryluk, Psychology)

COMMUNITY

The Centre on Aging maintains a reputation for exemplary work in knowledge sharing. In 2015 we presented the following:

- International Day of Older Persons and Valued Elder Recognition Award (VERA) Presentation
 - Candrive panel discussion with Drs. Holly Tuokko, Phyllis McGee, Malcolm Man-Son-Hing and Saanich Councillor Ms. Judy Brownoff
 - VERA recipients: Arthur Kratzmann and Maureen Walkden
- IdeaFest 2015: Aging deconstructed: The art & science of living well, supported by the Eldercare Foundation
 - Antipsychotic prescribing for persons with dementia in residential care: The influence of organizational culture and family involvement André Smith
 - Enabling responsive care through responsive leadership Sienna Caspar
 - Keeping well to the very end: Research on palliative and end-of-life care Kelli Stajduhar, Ami Bitschy, and Cara Pearson
 - Providing person-centred care in long term care settings: "Easier said than done" Karen Kobayashi,
 Denise Cloutier, Ruth Kampen, and Amy Cox
 - Taking control of diabetes: Is there a role for peer health coaches? Patrick McGowan
 - The Canadian Longitudinal Study on Aging (CLSA): Big science explores aging Debra Sheets and Lynne Young
 - Technology & aging: Aging in place longer and better Ron Duffell, Cindy de Frias, and Raquel Graham
 - When activity means more than exercise or entertainment: Perspectives from dementia caregivers –
 Kaitlyn Roland
 - Why paying attention deserves... attention! Colette Smart
- Colloquium series: Optimizing Aging & Health: Methods and Applications
 - January 20: Sensing life kinetics: Toward objective, continuous, unobtrusive and ecologically valid clinical studies Jeffrey Kaye (Oregon Health & Science University)

- February 3: Alternative multivariate models of change and their implications for reproducible research Annie Robitaille (University of Ottawa)
- February 10: Aging and innovation Andrew Sixsmith (Simon Fraser University)
- February 17: Patient-Reported Outcomes in Support of Patient Engagement in Research (PROSPER) –
 Scott M. Hofer (UVic)
- March 3: Are older adults more susceptible to consumer fraud? Michael Ross (University of Waterloo)
- March 10: Optimizing measurement for detection of within-person change and variation Jonathan Rush (UVic)
- March 17: Patient reported outcomes and other patient physician partnership tools using a community based interactive electronic medical record system Eric Shafonsky (BC Health Network)
- March 24: Promoting successful cognitive aging Cindy de Frias (UVic)
- March 31: Typologies, trajectories and transitions Longitudinal research in the Island Health Secure Research Environment – Ken Moselle (Island Health)
- April 7: REDCap platform features and advanced uses in health and aging research Victor Espinosa (Island Health)
- April 14: Can technologies match the abilities of human caregivers? Debra Sheets¹, Cheryl Beach²,
 Stuart MacDonald¹, Sandra Hundza¹ (¹UVic, ²Island Health)
- October 13: Visual tools for big analyses: cross-study replication of bivariate growth models Andrey Koval and Cassandra Brown (UVic,), William Beasley (University of Oklahoma)
- October 20: Flourishing not languishing: Aging well in community Andrew Moore (Canadian Senior Cohousing)
- November 3: Patient-Reported Outcome Measures (PROMs) Rick Sawatsky (Trinity Western University)
- November 17: The psychological and biological benefits of physical activity to individuals with high stress in their lives Eli Puterman (University of British Columbia)
- Lafayette Health Forum: The Power of MUSIC on Emotions and Health with guest speakers:
 - Lee Bartel PhD, Professor and Acting Director of Music and Health Research Collaboratory, Faculty of Music, University of Toronto
 - Johanne Brodeur PhD, MTA, Music Therapy Department Head, Victoria Conservatory of Music
 - Brian Christie PhD, Director of the Neuroscience Graduate Program, University of Victoria
- Masterminds 2015 cohosted with the UVic Retirees' Association
 - April 8: Peak experiences in music Gene Dowling, Mary Kennedy, Ian McDougall
 - April 15: Woman in the wild Mary Sanseverino
 - April 22: Zombie factory: Culture, stress and sudden death Peter Stephenson
 - April 29: Seeing speech from the inside John Esling

FUTURE PLANS

2015 was a good year. We started new research projects, new ideas to better communicate research findings, and provided new training that included cutting-edge seminars accessible to anyone with an interest in research on aging and an advanced undergraduate seminar course on writing research snapshots. The cutting-edge seminars were hosted on campus, broadcast live over the internet, and recorded and posted to YouTube.

Adding to the success of these new initiatives the Centre on Aging will continue to promote opportunities for greater engagement with the Vancouver Island community to help direct our activities, be involved in our research, and help us promote and share evidence-based research. We will look for additional partnership activities with the Lafayette String Quartet, Island Health and CanAssist while creating more new partnerships locally, nationally and internationally.

Accommodation for students to conduct their research at the Centre became possible in the Idea Lab; a new flexible space developed in 2015. Supporting student research has always been a priority, and developing the Idea Lab has enabled us to more fully integrate students into the Centre by giving them a voice and meeting their needs.

In 2016 we will be moving forward with a request to change our name from the Centre on Aging to the Institute on Aging and Lifelong Health. The new name formally acknowledges the Centre's emphasis on lifelong processes that influence health and aging-related outcomes. While retaining an emphasis on aging, the proposed name is reflective of a shift and growing mandate toward understanding modifiable lifestyle and contextual factors that influence aging and health outcomes later in life. This change in name will serve to highlight the interdisciplinary work of our many affiliates in the social, behavioural, and health sciences to improve health and well-being across the lifespan, emphasizing that aging and later life outcomes are the culmination of lifelong experiences, exposures, and events. The preference for the term institute, rather than centre, better reflects our broad scope, interdisciplinarity, and range of partnerships with health authorities and other academic institutions. Along with the name change we will revise our communication strategy to better reflect our changing vision of aging and health outcomes later in life.

All these activities are driven by our underlying commitment to cooperation and collaboration. We feel a responsibly for engaging and enriching the research tableau at UVic while providing a more inclusive environment.

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