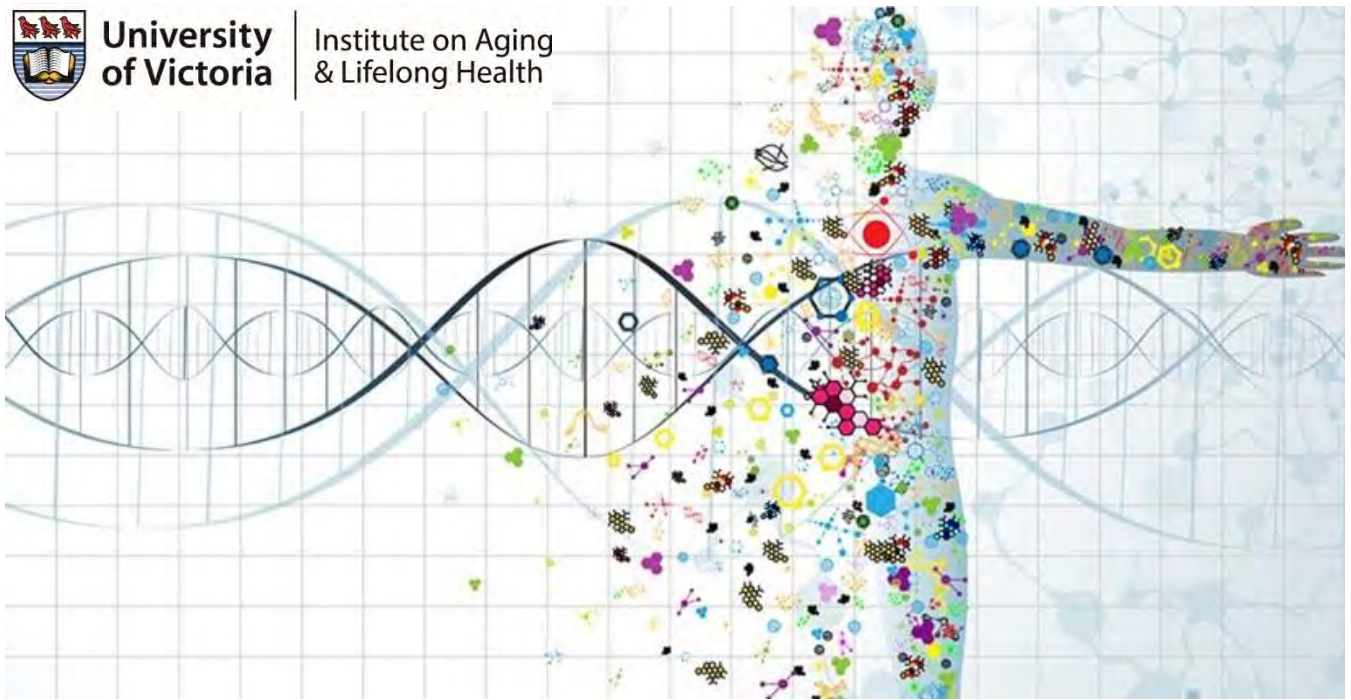




**University
of Victoria**

Institute on Aging
& Lifelong Health



Institute on Aging and Lifelong Health

Self-Assessment 2018

*To move forward we must understand where we
come from and recognize where we excelled.*

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1. Background

Research at the Institute on Aging and Lifelong Health (IALH) is rooted in a broad orientation to health and aging that includes attention to the social, psychological, environmental, geographical, and cultural contexts in which people live, as well as the institutions responsible for the health of aging populations. Moreover, we recognize that healthy aging is a life-long process that requires attention to developmental and contextual changes that occur across the life span rather than simply an emphasis on later life. Within the general framework, we use a variety of research designs and analytic approaches to advance knowledge of factors associated with individual and population health, including health services and sociocultural aspects of an aging society (see Appendix A). Efforts to address these areas of research are necessarily multidisciplinary (drawing on knowledge from different disciplines) and interdisciplinary (integrating knowledge and methods from different disciplines). Research at the institute draws on faculty (see Appendix B) from many university departments, including Anthropology, Economics, Engineering, Geography, History, Law, Nursing, Philosophy, Exercise Science, Psychology, Social Work, and Sociology, and in partnership with diverse communities and colleagues from other universities.

In April 2016, the name was changed from the Centre on Aging (COAG) to the Institute on Aging and Lifelong Health (IALH). The new name formally acknowledges the emphasis on lifelong processes and modifiable lifestyle, contextual factors, and other determinants of aging-related changes that influence health and aging-related outcomes. While retaining an emphasis on aging, IALH is reflective of a shift and growing mandate toward understanding the cumulative influences across the lifespan on aging and health outcomes later in life. This change in name highlights 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 the broad scope, interdisciplinarity, and range of partnerships with health authorities and other academic institutions.

1a. Mission

The institute is committed to promoting and conducting rigorous basic and applied research to improve the health and quality of life of individuals across the life course.

1b. Mandate

The Institute on Aging and Lifelong Health (IALH) is a multidisciplinary research facility established as the Centre on Aging, University of Victoria (UVic) in 1992 to advance knowledge in the field of aging and health based on the twin standards of scientific rigor and applied relevance.

Today, we undertake and support health and aging-related research (see Appendix C) in many forms including but not limited to: quantitative, qualitative, longitudinal, cross-sectional, experimental, mixed, participatory action focused, indigenous, and evaluation and intervention research relevant to support the opportunities and challenges of aging individuals, families and communities.

[Self-Management BC](#) became a major part of the Institute on Aging and Lifelong Health in 2002 when the IALH satellite office was established in Ladner, BC. A primary focus of activity of the Ladner office is on developing, implementing and evaluating various types of self-management programs to persons experiencing chronic health conditions and on the training of health care professionals to incorporate self-management support strategies into practice when interacting with patients. Between 2013-2018, 12,784 individuals with chronic health conditions have taken the courses led by 1,748 newly trained volunteer program leaders, adding to the 5,800 volunteer leaders in BC (see Appendix D).

IALH has the following specific aims:

- To advance knowledge on aging and lifelong health by supporting and conducting rigorous basic and applied research (see Appendix E).
- To facilitate communication and collaboration among researchers, older adults, clinicians, government officials, and our wider community (see Appendix F).
- To provide advanced training to researchers which includes post-doctoral, graduate and undergraduate training within the area of aging and lifelong health (see Appendix G).
- To mobilize knowledge on aging and health with decision makers (see Appendix H), scientists, practitioners (see Appendix I), and the public (see Appendix J).
- To facilitate the translation of research findings into interventions, services, products, and policies relevant to our society (see Appendix K).

1c. Institute Organization and Structure

1c.i. UVic Campus

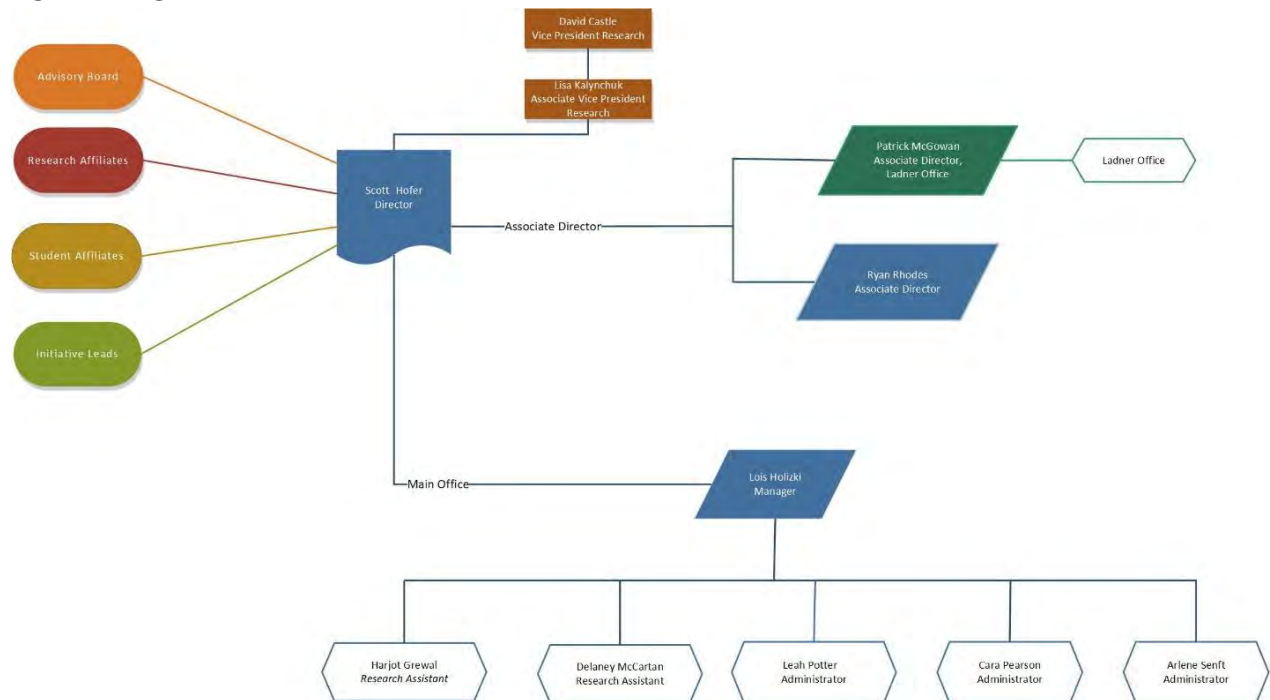
The Institute on Aging and Lifelong Health is a Senate-approved research centre, situated under the authority of the Vice-President Research. The policy guiding this authority is provided under the Establishment and Review of Research Centres ([Policy #RH8300](#)). The institute is located in R Hut, a one-level building at the edge of campus easily accessible by older research participants. R Hut has 21 offices, a data science studio, two boardrooms with video-conferencing equipment, and a measurement laboratory.

The organizational structure of the Institute is comprised of the following components (see [Figure 1](#)).

- **Director.** The Director is selected following the procedures set out by the University Policy in the Procedures for Appointment and Re-Appointment of Research Centre Directors ([Policy #GV0705](#)).
- **Associate Directors.** The Vice-President Research may on the recommendation of the director appoint an Associate Director. Currently, an Associate Director at the Victoria campus assists with specific tasks and a second Associate Director has been appointed to oversee the Self-Management BC programs in Ladner.
- **Strategic Initiative Leads.** A faculty research affiliate serves as Strategic Lead for each of the strategic research areas. Leaders of each area meet monthly with the IALH Director and Associate Directors and hold regular meetings with faculty affiliates. Initial appointments began in 2017 and are for three-year terms.
- **Staff.** Administrative staff includes a research assistant, three administrators, a research coordinator, and one manager (see Appendix L).

- **Advisory Board.** The Advisory Board provides non-binding strategic advice on the direction, management, and activities of the Institute. Advisory Board members are available to the director to call on through subcommittees or individually for advice and consultation on specific issues. In addition, the Board shall have a meeting of the whole at least twice a year. The board is constituted of individuals appointed by the director of the institute, with the advice of the chair, Advisory Board. The term of tenure for individual members is for three years, for no more than two consecutive terms. A minimum of two individuals on the board are to be aged 65 years or more. The chair of the Advisory Board is appointed by the director. The responsibilities of the chair include, but are not limited to, chairing all meetings of the Advisory Board and ensuring that the advisory responsibilities of the board are carried out. The past chair (one-year term) provides continuity and counsel to the chair, Advisory Board. The board includes no more than 25 individuals represented within the following distributions:
 - Vice-President Research (or delegate)
 - Director, Institute on Aging and Lifelong Health
 - Associate Director, Victoria campus, Institute on Aging and Lifelong Health (if appointed)
 - Associate Director, Ladner, Institute on Aging and Lifelong Health
 - Executive Director, Eldercare Foundation (or delegate)
 - President (or delegate), UVRA
 - The senior provincial government official representing seniors (or delegate)
 - Five academic staff for the University of Victoria with no more than two from any one department or school
 - One student representative who is a student affiliate
 - Dean (or delegate)
 - Two persons from the municipal, provincial and federal governments
 - Two persons from the non-government community sector
 - No more than four members at-large
 - Observers from associated agencies

Figure 1. Organizational Structure



1c.ii. Ladner Office

The Institute’s Ladner office, led by Dr. Patrick McGowan, offers the Stanford and other self-management programs throughout British Columbia for adults experiencing ongoing physical or mental health issues. These programs help people with chronic conditions to manage daily challenges and maintain an active and healthier life and have an important role in the continuity of care. Participants acquire knowledge, learn strategies and techniques and gain the motivation and confidence needed to manage their health. Six core program skills are taught: how to use a problem-solving process to resolve life dilemmas or to access services; how to make difficult life decisions; how to start and maintain healthy behaviours or discontinue unhealthy behaviours; how to access and use stress management and relaxation techniques; how to deal with difficult emotions; and how to use good communication skills. Current programs offered in BC are: Self-Management Health Coach Program, Online Chronic Conditions Self-Management Program, Chronic Conditions Self-Management Program, Chronic Disease Self-Management Program, Diabetes Self-Management Program, Cancer: Surviving and Thriving Self-Management Program, Chronic Pain Self-Management Program. Many of the programs are offered in English, Chinese, Punjabi, and for Aboriginal communities. In addition, the IALH Ladner office is engaged directly in a number of research projects with health authorities and researchers across the province. The organizational structure of the IALH Ladner office is comprised of the following components.

- **Associate Director.** Appointed to maintain the body of work at the Ladner office.
- **Staff.** Administrative staff includes five program support assistants, 10 program coordinators, two administrators, three research assistants, one research associate and one office manager.

1c.iii. Operational Structure

The Institute on Aging and Lifelong Health interacts with the university and the community. At UVic, the Institute works under the authority of the Vice President Research and the governance structure.

Affiliate Status. Affiliates of the Institute on Aging and Lifelong Health are appointed to promote increased communication and collaboration among a wide range of individuals interested in health and aging. Application for Affiliate status with the institute should be made to the director, Institute on Aging and Lifelong Health. The Advisory Board of the institute reviews applications and provides guidance to the director. The period of affiliate status is for five years and is renewable. Categories of affiliate status include:

- **UVic Research Affiliate:** Researchers who have a faculty appointment with the University of Victoria. Applications for UVic Research Affiliates include a current CV and a completed application form.
- **UVic Non-faculty Research Affiliate:** Researchers employed through the University of Victoria without a faculty appointment.
- **UVic Postdoctoral Affiliate:** Postdocs at the University of Victoria who have an interest in health and aging or focus on health and aging in their postgraduate work.
- **UVic Student Affiliate:** Students at the University of Victoria who have an interest in health and aging or focus on health and aging in their studies.
- **Community Affiliate:** Individuals, organizations and agencies collaborating with, and contributing to, the institute (e.g. government representatives, seniors' organizations, health-care workers, community members) and those who have an interest in research on health and aging.
- **External Research Affiliate:** Researchers who have a faculty appointment at a university other than UVic who are actively engaged in research with the Institute on Aging and Lifelong Health.
(See Appendix M)

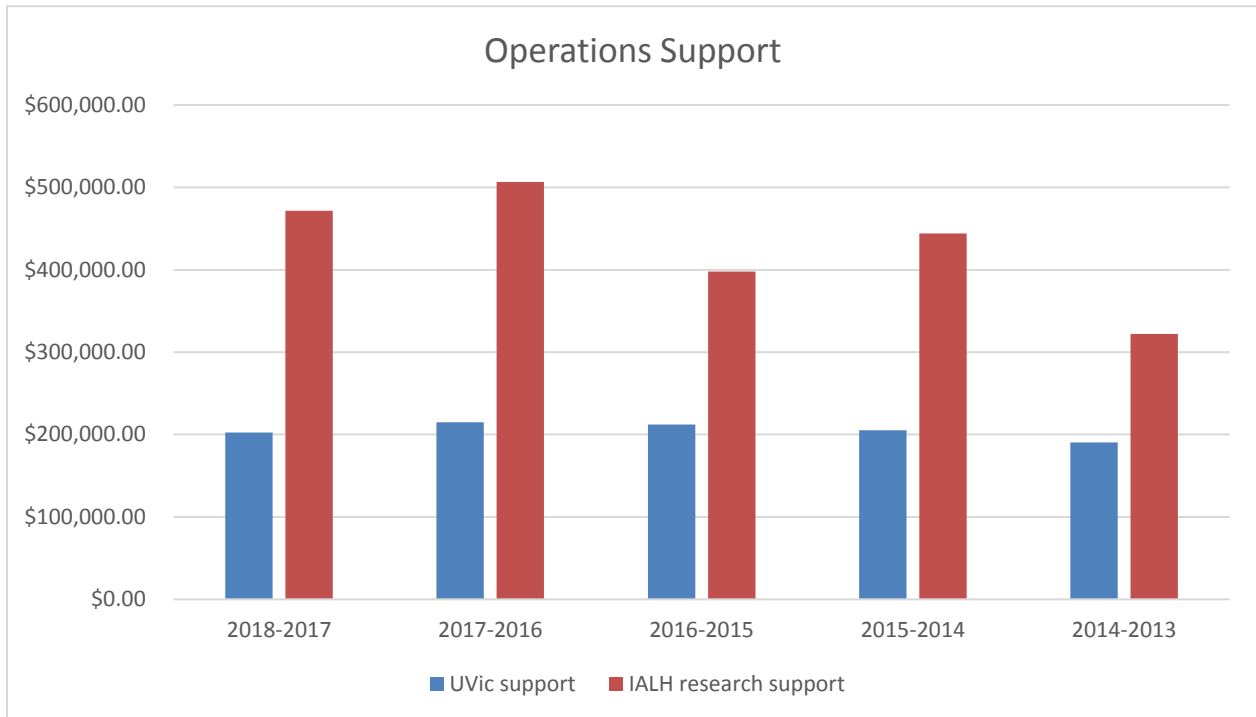
1d. Financial Statements

The institute has enjoyed the support of the university during its 25 years of operation. Initially that support was our only means to connect with the wider community of researchers and knowledge users. Currently our research has provided operational support funding allowing us to build capacity for our affiliates and community partners (both as the numbers and scope of work have grown), create institute-level research, better student support, and international partnerships.

Table 1. Operations Support

Year	UVic operation support	IALH research support	Total
2018-2017	\$202,374.00	\$471,647.00	\$674,021.00
2017-2016	\$214,951.00	\$506,540.55	\$721,491.55
2016-2015	\$212,022.85	\$397,899.68	\$609,922.53
2015-2014	\$205,132.23	\$443,977.69	\$649,109.92
2014-2013	\$190,375.60	\$322,091.86	\$512,467.46
total	\$1,024,855.68	\$2,142,156.78	\$3,167,012.46

Figure 2. UVic operations and IALH research support by year.



1e. Response to Recommendations from Previous 5-Year Review

The 2013 review recommended that the University of Victoria continue to support its Centre on Aging for a further five-year period, citing that through excellent interdisciplinary research, graduate training and knowledge translation to government, organizations and community members, the centre is enhancing the reputation of the University of Victoria. Below are the responses to the previous recommendations by the review committee:

1) The University of Victoria should continue to fund and support its Centre on Aging.

Response: The institute relies on continued, strong support provided through base budget funding (i.e., OVPR) and specific project and student related funding (e.g., educational development from VPAC). In addition, to achieve specific initiatives concerning knowledge mobilization and community engagement, we require support from the VP External (i.e., Communications and Development). We also acknowledge the active participation of deans, directors and unit chairs in facilitating the engagement of faculty members and students with the Institute on Aging and Lifelong Health. We have been working with UVic Development officers to prioritize endowment funding to permit expansion of our research programs and impact.

2) The University should clarify the proportion of the mandate that should be dedicated to research vs. community outreach.

Response: Over the last five years, IALH has prioritized research (e.g., Figure 3, below), grant activity, and active partnerships with health authorities, industry, and other academic research institutions. Research will remain a priority of the institute while maintaining a high degree of knowledge

mobilization and training activities. Two of our community outreach activities (VERA and IDOP) are now partnered activities with the Eldercare Foundation.

3) Consideration be given to a strategic research plan outlining areas of research priority for the purposes of resource allocation and future planning.

Response: We have developed strategic initiatives that both highlight and guide research activities with the aims of increasing affiliate-led and collaborative research within the institute and with external partners. Specific aims for each of the initiative-approach combinations (see Table 1) provide specificity of active and new priorities. These specific aims will guide IALH action plans that will be developed in collaboration with strategic leads and affiliates.

4) Consideration should be given to the possibility of strategically expanding the Centre's mandate to areas such as medicine, basic and engineering science given that there may be research strength within the institution in such areas. This could be potentially achieved with an increased COAG role of University of Victoria faculty members working in those areas. Expansion to basic science would facilitate interdisciplinarity and a more comprehensive understanding of the aging process.

Response: Over the last five years, IALH affiliates have engaged in grant development and projects with a number of external researchers and industry partners in medicine, basic science, and software development (mobile health technologies). This remains a high priority for institute-level activities and supports for affiliate researchers (e.g., Dr. Debra Sheets, Voices in Motion project; Dr. Anastasia Mallidou, CIHR planning meeting; Dr. Kelli Stajduhar, project financial support).

5) The Centre should explore ways of re-engaging and expanding the Friends of the COAG group. Opportunities through programs such as VERA, Snapshots and Masterminds are available to re-engage these volunteers/seniors. Individuals may be able to be recruited at the many Café Scientifiques sponsored by the COAG.

Response: This is a recommendation that we are improving on. We have engaged with seniors in a variety of ways through our community outreach activities, including community talks, Lafayette Health Awareness Forum, IDOP, etc. We have had a number of community volunteers work at the institute but have not had the larger program as we did in the past with the Friends of the Centre. In the past, the Friends were a social group that also provided support to us. Our current volunteers are engaged in more project-specific activities, such as our Valued Elder Recognition Award nominee process.

6) Although staff members expressed satisfaction with the current model of staff work allocation, given the considerable discontent among faculty, this model should be reexamined and the concerns addressed.

Response: The organization and structure of IALH has changed, with increasing engagement with IALH research affiliates and strategic leads having a greater role in the development of priorities and IALH activities. Each year a number of events and informal social events have been organized to permit engagement among faculty and student affiliates and staff, but these have not always been well-attended. In some ways, this concern remains an issue. Overall, the institute staff and director have been responsive and supportive of a broad range of faculty and student research.

7) Specific attention should be paid to resolving internal differences related to resource and staff workload allocation in ensure the smooth operation of the Centre. Failure to address these issues may eventually be detrimental to the COAG success.

Response: The institute maintains a portfolio of research activity and scientific public outreach events. The staff have been instrumental to the success of the institute activities summarized in this self-study document and in the smooth running of grant preparation and management activities. In addition, staff have taken on a number of research-related responsibilities as we initiate and maintain large-scale institute-level projects. Overall, the institute has operated very well and under a higher degree of “load” over the past several years as we incorporate new programs, research engagement events, and increase the number of large-scale projects that are run through IALH.

8) Consideration should be given to the possibility of creating definitions of core faculty or centre fellows (e.g., those who are physically located at the centre and use substantial centre infrastructure) and for those who are affiliates but not core faculty. Together with such a distinction, there should be a clear mechanism (e.g., regular meetings) through which core members can influence Centre decisions and direction.

Response: The designation of “core” faculty had changed prior to 2013 and we have chosen to not re-instate this designation. Rather, several of the faculty affiliates with space within IALH have been designated as Strategic Leads and meet regularly with related affiliate researchers and students and with IALH Directors and staff to prioritize initiatives and plan support for key research and outreach activities. IALH has a number of affiliates who are highly engaged in activities but who are not able to be physically located within the institute. Our goal is to achieve a high level of involvement and support for all IALH affiliates and “core” designation may be detrimental to this aim.

9) Consideration should also be given to creating an Associate Director position with specific portfolios. This would help alleviate the Director’s work load and allow for additional input in decision making.

Response: The institute currently has two associate director positions and this has been impactful for overall institute management and planning. Dr. Ryan Rhodes has been designated as Associate Director, Victoria campus, and leads a number of IALH activities, including oversight of the communications plan. Dr. Patrick McGowan has been designated as Associate Director, IALH Ladner, which maintains the Self-Management BC programs and a number of associated research projects across BC.

10) The COAG should strive to create more opportunities for students to be together as a cohort (e.g., social events for students; a seminar series for students, representing various disciplines, to present their research).

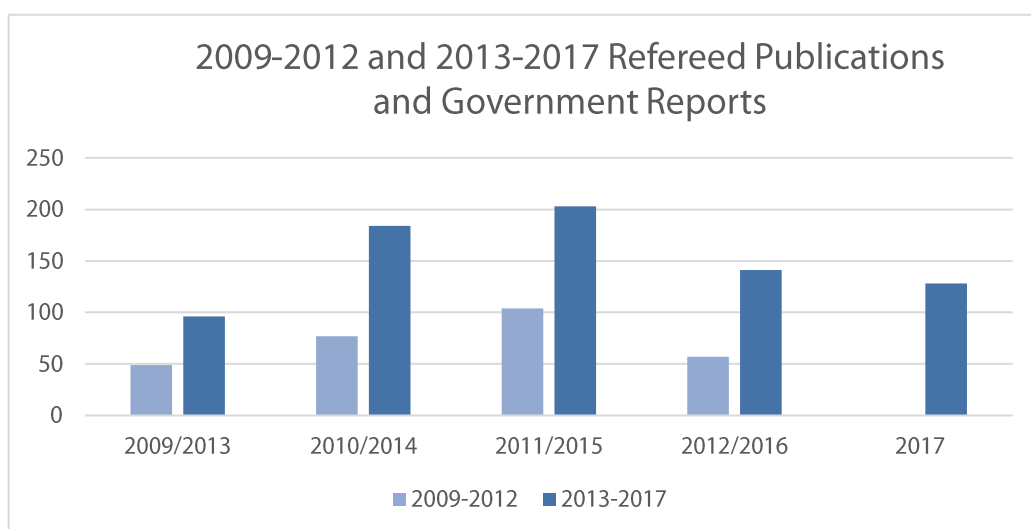
Response: Student engagement and support has been a high priority (e.g., Pecha Kucha, annual Director’s Welcome, pizza nights) and quite successful as demonstrated by the dramatic increase in the number of student affiliates over the last five years.

2. Self-Assessment 2013 to 2017

2a. Promote and facilitate collaborative and/or interdisciplinary research and enhancement of research networking capacity and infrastructure

The Institute on Aging and Lifelong Health provides research and administrative support to increase innovation, impact, and productivity of our faculty and student affiliates, as well as our research partners. Research productivity by institute affiliates, as indicated by refereed publications and reports, has increased over the past five years (see Figure 3).

Figure 3. Comparison of [2009-2012](#) and [2013-2017](#) Refereed Publications and Government Reports published by Research Affiliates



2a.i. Strategic Research Initiatives and Cross-Cutting Approaches

We have identified three primary strengths on which to advance leading-edge research and support local, national, and international partnerships and collaborations (see Table 2). Crosscutting research approaches include observational and experimental designs and data collection, an emphasis on improving health services and technological innovations, and advances in data analytics and rigorous replication research. Faculty affiliates lead each area and hold regular meetings to share current and planned research activities and develop new opportunities for grants and collaborative research.

Research Initiative 1: Promoting Cognitive Health

This research focuses on the promotion of cognitive health including the characterization of that which typifies cognitive functioning across the lifespan as well as the identification and implementation of environmental supports and interventions that are beneficial for cognitive health. This research pertains to healthy older adults and those who may be experiencing some form of cognitive decline with an ultimate goal of preventing or minimizing change and functional disability. Cognitive health has long been a major area of research and expertise at the University of Victoria and supported strongly among IALH affiliates. The Neil and Susan Manning Cognitive Health Initiative will support an IALH research clinic in which mobile health tools and state-of-the-art assessments are being developed and validated

to more accurately detect progressive changes in neurocognitive function and enable intervention research to reduce the rate and impact of dementia.

Research Initiative 2: Lifelong Health

What behavioural interventions work to help adopt new, healthier behaviours that protect people from health conditions and improve quality of life? What life events help to increase or decrease healthy behaviours? These are just two of the many questions researchers are asking in order to improve quality of life and positively impact communities. A major emphasis of IALH research and activities is on lifelong processes and particularly on modifiable lifestyle and contextual factors that influence aging and health outcomes later in life. For example, Self-Management BC has been promoting healthy behaviours over the last 15 years. This strategic research initiative supports 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.

Research Initiative 3: Vulnerability and Frailty

As we age, we are more likely to experience multiple co-existing chronic conditions. While advances in medical technology mean that people with chronic conditions live much longer than they have in the past, eventually life comes to an end, often after months or years in a state of frailty. Our research initiatives examine interventions that prevent frailty and how to enhance the quality of care and quality of life for those living with frailty, serious and life-limiting conditions and inform health services and health and social policies in this area.

Table 2. Strategic Research Initiatives and Cross-Cutting Approaches

		Strategic Research Initiatives		
		Promoting Cognitive Health <i>To delay the onset and alter the rate of cognitive decline and improve the lives of people with cognitive disorders</i>	Lifelong Health <i>To optimize the health and well-being of individuals and families across the life course</i>	Vulnerability and Frailty <i>To delay functional loss, improve autonomy and independence, and enhance quality of life, until the end of life</i>
Interdisciplinary and Cross-Cutting Approaches	Longitudinal Studies and Interventions Longitudinal Studies Randomized Trials Intensive Measurement Community-based participatory research	<p>To lead international collaborative analysis of longitudinal studies of cognitive aging and dementia.</p> <p>To develop a prospective cohort study to improve the accuracy of detecting cognitive change and risk for dementia.</p> <p>To advance prevention and treatment options for individuals with subjective cognitive decline and cognitive impairment.</p>	<p>To engage in innovative and population-relevant health behaviour research to improve health outcomes and promote physical, mental, and social well-being.</p> <p>To address the social, environmental, economic, and cultural factors related to healthy and age-friendly communities.</p>	<p>To improve predictive models to identify individuals at risk for transitions into higher levels of care.</p> <p>To meet the needs of vulnerable populations (e.g., persons living with dementia, end of life, caregivers) in the achievement and promotion of quality of life.</p>
	Care and Technological Innovations Health Informatics Mobile Apps Home-Based Monitoring Assistive Technology Usability Health Services and System Innovations	<p>To develop and validate light-touch, low cost mobile assessment tools for accurate and early detection of subtle cognitive decline.</p> <p>To develop protocol for transactional data flow (e.g., risk factors, cognitive assessment) with health care providers.</p> <p>To develop methods for designing, testing and deploying mobile, home-based technologies and assistive technologies.</p> <p>In partnership with CanAssist, to identify and address challenges for individuals with cognitive decline and impairment.</p>	<p>To integrate physical activity monitoring into mobile health and cognitive assessment apps for use in research and health care settings.</p> <p>To develop long-term usability and usage tracking and analysis (of apps, patient information systems and other innovations) over time and over distributed settings.</p>	<p>To advance development and evaluation of assistive technology, in partnership with CanAssist, to support independence and autonomy at home.</p> <p>To improve health services for those at end of life and for vulnerable populations.</p> <p>To provide continual feedback and refinement from end-user studies to improve design and impact of technologies to support independent living.</p>
	Data Analytics Quantitative Methods Qualitative and Mixed Methods Research Synthesis Health Data Analytics	<p>To advance neuroscience tools and designs to improve sensitivity and specificity to detect subtle cognitive change.</p> <p>To support and advance methods for reproducible and replicable research in cognitive health and dementia.</p> <p>To advance precision cognitive health research and quantify individual risk.</p>	<p>To develop real-time analytics to provide individualized feedback regarding impact of lifestyle change on health, cognitive, and well-being outcomes.</p> <p>To support research using integrative and big data analytics to improve individual and population health outcomes.</p>	<p>To advance data analytics for detecting change and quantifying individual risk for acute events with home-based monitoring.</p> <p>To build learning analytic systems in health care for improving clinical decision support, care coordination, and patient outcomes.</p>

Cross-Cutting Approach 1: Longitudinal Studies and Interventions

The institute is a longstanding leader in longitudinal studies such as the Victoria Longitudinal Study, Canadian Longitudinal Study on Aging, Project Mind, CanDrive, and the Integrative Analysis of Longitudinal Studies of Aging and Dementia, a research network comprised of over 110 longitudinal studies.

Cross-Cutting Approach 2: Care and Technological Innovations

One of the chief goals of aging-related research is to enhance and maintain quality of life within environments of choice through the identification of early changes in health and functioning, and to offer appropriate and efficient early interventions before serious limitations or morbidities develop. Changes in physical condition, neurocognitive status, functional capacity, and ability to carry out health-promoting or maintenance activities require regular monitoring to better match the array of treatments and supports to the patient's changing spectrum of needs. Research into innovations on the collection, storage, processing, and communication of health data for developing and supporting best practices, as well as for clinical decision-making purposes, is the underpinning of this area of research.

Cross-Cutting Approach 3: Data Analytics

Expertise in data analytics and data science are major strengths of affiliates in Social Sciences (Psychology, Sociology, Geography), Engineering (Computer Sciences), and Health Informatics. Important partnerships have been developed with Island Health, PopData BC, and other institutions. Researchers at IALH work with many different longitudinal studies (e.g., Integrative Analysis of Longitudinal Studies of Aging and Dementia). This area supports data curatorship—the maintenance and development of scripts that prepare study for analysis and create a “general point of departure” for any subsequent reproducible research and innovations in data analytics.

2a.ii. Alignment with the UVic Strategic Framework (2018-2023) and UVic Research Strategic Plan (2016-2021)

Our three research initiatives on Promoting Cognitive Health, Lifelong Health, and Vulnerability and Frailty build on a strong legacy of research at UVic and strengths of our institute affiliates and academic programs (see Appendix N). The UVic strategic priorities are advanced by the institute's priorities of research excellence and impact on an aging society. As an internationally recognized research institute, our local, national and international research activity and knowledge mobilization promotes student success, and facilitation of collaboration, partnerships and interdisciplinary approaches on campus and with our external colleagues.

2a.iii. Institute-Level Research Projects

The institute supports several major research projects, a new direction that strengthens key partnerships and that will provide lasting scientific resources to institute affiliates and increase collaborative research and training opportunities. The institute continues to have a primary leadership role in the Canadian Longitudinal Study on Aging (CLSA), as one of 10 data collection sites, with plans for statistical analysis workshops to support researchers across Canada. The Neil and Susan Manning Cognitive Health Initiative (CHI), in partnership with Island Health and UBC, aims to improve earlier

diagnosis and increase treatment options for dementia through the development of state-of-the-art digital tools and integration of research protocols into patient care. A CIHR-funded project, ePRO, in partnership with Island Health, and Ayogo, builds on the BC Self-Management (IALH Ladner office) Health Coach Program by incorporating home health monitoring devices to evaluate how additional day-to-day information on health status, symptoms, and self-management practices can improve the health of patients with complex care needs living independently.

2a.iii. Partnerships

The institute has a number of key active partnerships that contribute in a variety of ways to the research and training mission. IALH supports a range of self-management programs in BC, with expansion to cognitive impairment and dementia, and together with CanAssist, provides a broad BC-based platform for development, deployment, and evaluation of impactful programs and technologies. Our partnership with the Oregon Roybal Center on Aging and Technology (ORCATECH) at OHSU is another impactful research program providing smart-home technology and daily health device data. This ORCATECH Lifelab BC platform will extend beyond the study be part of a larger network of US-based sites to advance basic and applied research to detect changes in cognitive and physical functioning, permitting evaluation of new assistive technologies in partnership with UVic CanAssist.

These UVic-based partnerships together provide an innovation hub that will support the development of novel diagnostic tools, advanced and emerging analytics for earlier and more accurate detection of change, integration of 'omics and neuroimaging technologies, and optimization of assistive technologies and medical and behavioral interventions to improve individual health. Our collaborations with health authorities within BC will be patient- and family-centred and enable the development of rapid learning health care systems by bringing together improved assessments, predictive analytics, treatment options, and evaluation of outcomes. Below is a brief description of several of these partnerships and a few highlights of joint activities and their importance for institute research, funding, and knowledge translation.

Eldercare Foundation. The Eldercare Foundation is a registered charity that raises and manages funds dedicated to supporting the provision of an enhanced quality of life for older adults. The institute has had a strong relation with the Eldercare Foundation since Lori McLeod became executive director in 2000. Past director (COAG), Holly Tuokko, strengthened these ties as a member of the Eldercare Advisory Board and with Lori McLeod as chair of the IALH (then COAG) fund raising committee and an ex officio member of the advisory board. The Eldercare Foundation funded events and worked together to identify key areas for research and training. Over the last five years, our partnership has continued to strengthen with the Eldercare Foundation becoming a partner with us on the Valued Elder Recognition Award (VERA), (see Appendix O) starting in 2016. Our annual event, the International Day of Older Persons (IDOP) Lecture (see Appendix J) and VERA ceremony became a permanent funding line for Eldercare (\$5K annually). Eldercare began to recruit us as partners for activities they lead such as the Seniors Planning Table and the off shoots from that group including World Cafes, Knowledge Hub and ElderConnect. We have engaged in grant writing and support to CIHR and other funding agencies and supporting the research segment of Eldercare funding applications.

[CanAssist](#). CanAssist at the University of Victoria is dedicated to helping people with disabilities improve their quality of life, with a focus on promoting independence and inclusion. The IALH Research Coordinator and researchers work with CanAssist on research projects and developed an evaluation process for new technologies and applications. Recently, we have developed a Maintaining Cognitive Vitality Research Cluster in partnership with CanAssist. This partnership enables research and technology development to improve independence, reduce individual and caregiver stress, maintain and bolster protective factors, and ultimately slow the trajectory of functional impairment so that individuals with neurodegenerative disorders can stay in their own homes as long as safely possible, and in some instances, avoid the need to leave their homes for residential care.

[Lafayette String Quartet](#). Our association with members of the Lafayette String Quartet began in 2013 at the Lafayette String Quartet Health Awareness Forum (see Appendix P), when IALH director, Scott Hofer, became a member of the planning committee and IALH became a partner in hosting the annual Lafayette Health Awareness Forum.

[Oregon Roybal Center on Aging and Technology \(ORCATECH\), Oregon Health & Science University](#). Institute researchers have active projects in partnership with Dr. Jeffrey Kaye, Director of ORCATECH. We have piloted and are now beginning recruitment into the CIHR-funded ePRO clinical trial with plans to maintain the Lifelab BC cohort to provide comprehensive monitoring of home-based change in mobility, health, functioning, and health behaviors and a platform for innovation. This partnership is the first international site of a large multi-site Lifelab project in the USA.

[Division of Family Practice, Victoria](#). The Institute on Aging and Lifelong Health co-hosted a public presentation with the Division of Family Practice on June 26, 2014 when the institute was contacted about partnering on this presentation by Dr. Chris Watts. This free presentation was held in the Bob Wright Building Flury Hall, with a full capacity audience of 300 people. The institute arranged the presentation venue, created the advertising and distributed it widely, set up and took the attendees' registration, created and printed the program, provided all AV equipment, and created and printed evaluation forms as well as compiling the responses. Our engagement continues with our Neil and Susan Manning Cognitive Health Initiative and the development of cognitive assessment tools for use in primary care.

[University of Manitoba, Centre on Aging](#). The institute has long had a strong relationship with the Centre on Aging, University of Manitoba because Neena Chappell was their first director as well as at the founding director at the University of Victoria. At Canadian Association on Gerontology meeting in 2017, Directors Scott Hofer and Michelle Porter agreed to spearhead a national resource to share information, events, and create a space for research collaboration across all "Centres on Aging" in Canada using the website WeKnowAging.ca.

[Vancouver Island Health Authority](#). A number of projects and grant applications have developed in partnership between IALH researchers at the University of Victoria and front-line clinicians and clinician-researchers at Island Health. The Neil and Susan Manning Cognitive Health Initiative is a primary example of this partnership. This relationship was supported and advanced previously by VIPAC-COACH

activities and is now supported by strong links with the Research and Capacity Building division at Island Health.

Software Developers, [Ayogo](#) and [Freshworks](#). A number of our recent, institute-level, research projects are in the area of mobile health technology (mHealth). Based on the ePRO study, which is a clinical trial to evaluate the impact of home health devices on improving chronic disease self-management programs, new mobile apps are being developed by Ayogo for improving diabetes care in the Punjabi community. Funding from the Neil and Susan Manning Cognitive Health Initiative is supporting a partnership with Freshworks to develop a “MyCogHealth” to improve the accuracy and earlier detection of cognitive disorders, permitting increased opportunities for preventative treatment options for individuals with progressive neurodegenerative disorders. These partnerships are likely to continue and expand.

[University of Victoria Retirees Association \(UVRA\)](#). IALH has a strong partnership with the UVRA on a variety of activities. IALH has provided office and meeting space since 2015. The UVRA hosts a number of engaging speaker series, including Masterminds (see Appendix Q) and the Elder Academy. The UVRA has recently established a scholarship for graduate students whose research focuses on the 55+ age group, allocating \$10,000 to launch the fund, with matching for all donations up to a maximum of \$25,000.

2b. Increase and effectively manage the resources and research support for its members and the wider university community.

The institute maintains a large portfolio of research projects, supports new grant applications, manages the Self-Management BC programs (IALH Ladner), and hosts a number of scientific public outreach events. The institute has been successful in obtaining a number of grants to initiate and maintain large-scale institute-level projects. Overall, the institute has operated very well and under a higher degree of “load”. However, it is clear that we now need a plan for growth given the recent increase the number of large-scale projects that are run through IALH and initiatives that are aimed at achieving additional resources.

One example of increasing resources towards major initiatives is a particular partnership with Island Health. Recently, IALH has supported Dr. Andriy Koval in the establishment of the Data Science Studio (DSS) in the application of state-of-the-art data analytics and leading data science practices for innovative research on aging and health that will generate new knowledge, improve health system performance, and inform health policy. This is an active partnership with Dr. Ken Moselle, Director of the Applied Clinical Research Unit, Island Health.

2c. Provide education and training in research and related skills, especially for graduate and undergraduate students and thereby enhance the academic programs of their constituent academic units.

Training of highly qualified personnel (HQP) is an integral component of our research and knowledge sharing. We continue to seek and realize opportunities to attract and engage students and community

members with events such as the Colloquium Series, our intergenerational film course and Research Snapshot course, and a variety of other outreach activities. As an example activity, Drs. Moselle, Koval, and Hofer taught a summer 2017 course on Statistical Analysis of Administrative Health and Linked Longitudinal Encounter Data (PSYC 513) that has led to a number of currently active projects by students and faculty.

2d. Contribute to the university's strategic educational and research missions and to support synergies between research, teaching and learning

The institute is actively engaged in training and communication activities to maximize the short-term and long-term impact of research. IALH researchers, both faculty and students, are critical to the success of the Institute's mission and strategic research initiatives and are supported in a variety of ways. The institute has grown over the last five years, particularly in the number of student affiliates. We now have 45 student affiliates, compared to five student affiliates in 2013.

Students

Student Affiliates: 45

Post doc Affiliates: 2

Researchers

UVic Research Affiliates: 38

UVic Research Affiliates retired: 12

External Research Affiliates: 32

Community Affiliates: 9

Over the last five years, the institute has explored and supported a number of integrative education and research activities. A good example of this is Research Snapshots, originally written by the Friends of the Centre on Aging, where a dedicated group of volunteers wrote 62 snapshots between 2002 and 2008. The snapshots abridged peer-reviewed articles into clear language summaries. Summaries were based on recently published, peer-reviewed research by faculty research affiliates. In Spring 2015, an undergraduate research seminar called Writing Research Snapshots was developed to provide experience in interdisciplinary research on aging and health through the development of clear language research summaries. This undergraduate seminar was led by the institute's director, Scott Hofer, with graduate students Tomiko Yoneda, Amanda Kelly, and Tina Quade. There were 10 undergraduate students in the course, which took place in the institute's boardroom. Students worked in partnership with interdisciplinary graduate students, staff, faculty, and community participants in the discussion and review of each research summary (see Appendix R). The course operated on a three-week cycle for each summary with four summaries being completed during the course. In the first week, students partnered to provide support to each other. Each student chose an article from the approved list and created a two-page snapshot. In the second week, students gave a technical presentation of the research paper to discuss scientific findings and validity, and presented a draft of the snapshot. In the third week, the draft was reviewed and revised in class. Final draft was circulated to community partners with class discussion and leading to a finalized snapshot for publication. Students were asked to consider these concepts as it relates to the article they have chosen to snapshot: the audience and the purpose of the summary,

whether that be to inform, persuade, argue, or focus activism. This course was highly valued by the undergraduate students and served as a template for knowledge mobilization within IALH.

2e. Transfer and mobilize knowledge gained through research for the benefit of society, via a variety of mechanisms as appropriate.

The Institute on Aging and Lifelong Health has a reputation for exemplary work in knowledge mobilization, with interviews and articles (see Appendix S) by or about IALH research affiliates and IALH initiatives in newspapers, television, radio, and online (see Table 3). A variety of internal and external events showcase the work of UVic researchers. The Institute maintains relationships with an extensive network of community members, the UVic-sponsored knowledge mobilization unit, advocacy groups, practitioners, decision makers, students, and researchers through print and electronic newsletters, social media, seminars, lectures, formal and informal meetings, and other events. Knowledge sharing begins with an informed staff ready to listen and mobilize next steps for bridging relationships with researchers, students, staff, and community members. Communication priorities include sharing findings, interventions, services, products, and suggested policies relevant to aging and lifelong health.

Table 3. Interviews and articles in media

2017 = 33 instances				
Newspapers	Online news sites	Radio	Television	Magazines
17	4	9	3	0
2016 = 49 instances				
Newspapers	Online news sites	Radio	Television	Magazines
22	8	16	3	0
2015 = 39 instances				
Newspapers	Online news sites	Radio	Television	Magazines
24	5	9	1	0
2014 = 34 instances				
Newspapers	Online news sites	Radio	Television	Magazines
18	5	8	2	1
2013 = 33 instances				
Newspapers	Online news sites	Radio	Television	Magazines
21	1	9	1	1

The current communication plan states the following list of communications principles:

- Regular communications with all audiences with the following key message
 - Our research impacts health and aging
 - Evidence-based research at UVic has long-term impacts on health and society
- Encourage diverse groups to participate and contribute to remain active and productive
- Keep audiences informed about IALH successes and activities
- Regular and timely communications about publications, grants, policy, and other emerging activities

- Messages in our newsletter, on our website or sent via email are formatted to share on our social media channels, currently Facebook, YouTube and Twitter

These principles are used to communicate with the following audiences:

- Researchers: faculty, university administrators, granting agency representatives, health authority researchers, clinicians, and administrators, and other government and related personnel
- Students: graduate, post-doctoral, and undergraduate trainees, and
- Community: organizational partners (not-for-profits, non-governmental organizations), citizens and potential donors

2f. Enhance the reputation of its members, the constituent academic units, and the university through the quality of its work.

The IALH leads and/or partners on a large variety of impactful events that are aligned with the IALH strategic initiatives and cross-cutting approaches.

Annual

- ^ IALH Colloquium Series
- ^ International Day of Older Persons' Lecture Series
- ^ Student meetings to advance research, and provide training and KMB opportunities (see Appendix T)

Partnered

- Lafayette Health Awareness Forum
- Masterminds
- VERA with Eldercare Foundation
- Division of Family Practice
- CanAssist
- Embrace Aging
- Ideafest (see Appendix U)
- Research focussed functions (e.g., CLSA participant retention, ePRO focus groups)
- Various agency meetings, showcases and tradeshow

3. Visioning: The Next 5 Years

3a. Promote and facilitate collaborative and/or interdisciplinary research and enhancement of research networking capacity and infrastructure.

The institute will continue to facilitate and provide research and administrative supports to increase local, national, and international collaborative research and collaborative activities. Institute researchers contribute to the body of knowledge on aging and health by stimulating and conducting rigorous basic and applied research. Table 1 summarizes three strategic initiatives and cross-cutting approaches and provides a set of specific aims (for each initiative-approach combination) that will guide the next five years of IALH activity. IALH contributions will be indicated by the development and funding of research proposals and contracts, the publication of scholarly articles and books, presentations at professional meetings, public lectures and workshops, and web-based information. We will create and respond effectively to emerging research funding opportunities and priorities at the provincial, national and international levels, including active government and corporate relations. The institute is currently developing a number of major partnerships with other universities, including the University of Gothenburg and University of Central Florida.

The institute is increasingly engaged in applied research. We will continue to facilitate interactions and collaboration among scholars, practitioners, government officials, and the community. This will be indicated by the development of collaborative research projects, presentations, consultation, and partnerships between university researchers and government, health professionals, community groups and the private sector. We will continue to support and build on the research initiatives and the following Institute-level projects.

Neil and Susan Manning Cognitive Health Initiative (CHI). This University of Victoria (UVic) and Island Health partnership, funded through a private donation (\$2.5M; 2017 October), supports the development and validation of mobile health tools and state-of-the-art cognitive assessments to more accurately detect progressive changes in neurocognitive function and enable prevention and intervention trials to alter the onset and impact of dementia.

Research Integration with Self-Management BC. The UVic Institute on Aging and Lifelong Health (McGowan, Associate Director, Ladner) facilitates a range of self-management and Health Coach programs throughout BC, funded by the BC Ministry of Health. Persons with chronic health conditions and family members can participate in self-management programs offered in communities throughout BC at no cost. These are evidence-based programs that provide information, teach practical skills and give people the confidence to manage their health condition(s). The next program to be developed and deployed is in support of individuals with cognitive impairment and dementia and their caregivers, with potential integration within health authorities in BC through the Cognitive Health Initiative.

ePRO: Evaluating the Effectiveness of Integrating Patient Reported Outcomes and Assessments in the Care for Seniors with Complex Needs (e-PRO; CIHR). Seniors who are discharged from hospital or Emergency Departments are at particularly high risk for readmissions, with readmission rates up to 59% (CIHI, 2012). Many of these readmissions may be preventable with improvements in home self-care, in-

home monitoring, self-tracking, and better training in health self-management practices. Self-management is a pivotal component of a strategy to successfully meet and address the needs of an aging population whose older citizens often desire to age at home. For seniors 65+ with chronic medical conditions and a recent acute care event, we will evaluate (i.e., clinical trial) whether the addition of integrated electronic health monitoring within a self-management program will reduce health care utilization, improve patient activation and decrease depressive symptoms at the end of a three-month period. Our plan is for our partnership with OHSU ORCATECH Lifelab to continue and provide comprehensive monitoring of home-based change in mobility, health, functioning, and health behaviors and a platform for innovation.

3b. Increase and effectively manage the resources and research support for its members and the wider university community

IALH is engaged in a number of development activities that will contribute to the sustainability and growth of the institute. Funding for IALH comes from a variety of sources. The University of Victoria supports IALH with funding for three full-time staff positions and a modest annual budget. IALH also receives administrative support from contract overheads, which funds four additional staff positions (2 full-time and 1 part-time) and most of our overhead expenses.

Government. Funds are received for contracted research and knowledge translation. Generally, this funding allows improved outcomes for BC residents and supports research, knowledge mobilization, and overhead expenses.

Tri-Agency Competitions. IALH, its research affiliates, students, and partners are very successful with submissions to our national agencies – especially Canadian Institutes of Health Research. This funding builds research capacity and knowledge mobilization but does not allow for infrastructure growth.

Not-for-profit and International Competitions. IALH, its research affiliates, students, and partners are very successful with submissions to local, provincial, national, and international funding agencies. This funding is usually for research and knowledge mobilization.

Private Donations. IALH receives private donations to support our scholarships and travel grants. Donations also fund research and increase the value of our endowment.

3c. Provide education and training in research and related skills, especially for graduate and undergraduate students and thereby enhance the academic programs of their constituent academic units.

We will continue to contribute to the training of skilled research personnel by promoting and facilitating post-doctoral, graduate and undergraduate training within the area of aging and health. This will be indicated by the supervision of students, particularly at the graduate and post-graduate levels, provision of scholarships (see Appendix V) and support of external research funding relating to aging, as well as support of disciplinary, multi-, inter-, trans-disciplinary training opportunities in research.

3d. Contribute to the university's strategic educational and research missions and to support synergies between research, teaching and learning

Over the next five years, the institute will continue to lead and support integrative education and research activities. We will bring back our course on Research Snapshots, providing an intensive research seminar for advanced undergraduate students to write abridged peer-reviewed articles into clear language summaries. In addition, we will continue to develop jointly-organized courses and advanced statistical training with our academic department partners.

3e. Transfer and mobilize knowledge gained through research for the benefit of society, via a variety of mechanisms as appropriate.

The Institute on Aging and Lifelong Health has a reputation for exemplary work in knowledge mobilization and we will continue to promote the translation of research findings into interventions, services, products, and policies relevant to older adults. This will be indicated by the active participation of faculty and staff with our partners, alliances, committees and working groups, and by the incorporation of research findings into practice and policy.

3f. Enhance the reputation of its members, the constituent academic units, and the university through the quality of its work.

The institute will continue to provide a focus and direction to the university's and region's research activities in the area of aging and health. This will be indicated by the engagement of affiliated researchers in the integration of research and creative endeavours into the learning and teaching environment, development of research initiatives, representation at university, government, and community events, and collaborations with external institutions. We have and will continue to increase the number of graduate and undergraduate student scholarships, encouraging an emphasis on aging and lifelong health and highlighting our remarkable student affiliates.

4. Summary

Over the last five years there have been significant changes in the structure and function of the Institute on Aging and Lifelong Health. These changes were in response to the evolving landscape of research locally, nationally and internationally. The quality of research at the institute has been maintained and steps have been taken to ensure alignment of the institute's mandate to the university's strategic plan and articulate strategies for moving the institute forward.

In terms of research, we continue to pursue ways to enhance our capacity to engage more fully with our current research affiliates, particularly those with time dedicated to research in aging and to seek additional opportunities to recruit other research affiliates, thereby enhancing the research culture at the institute.

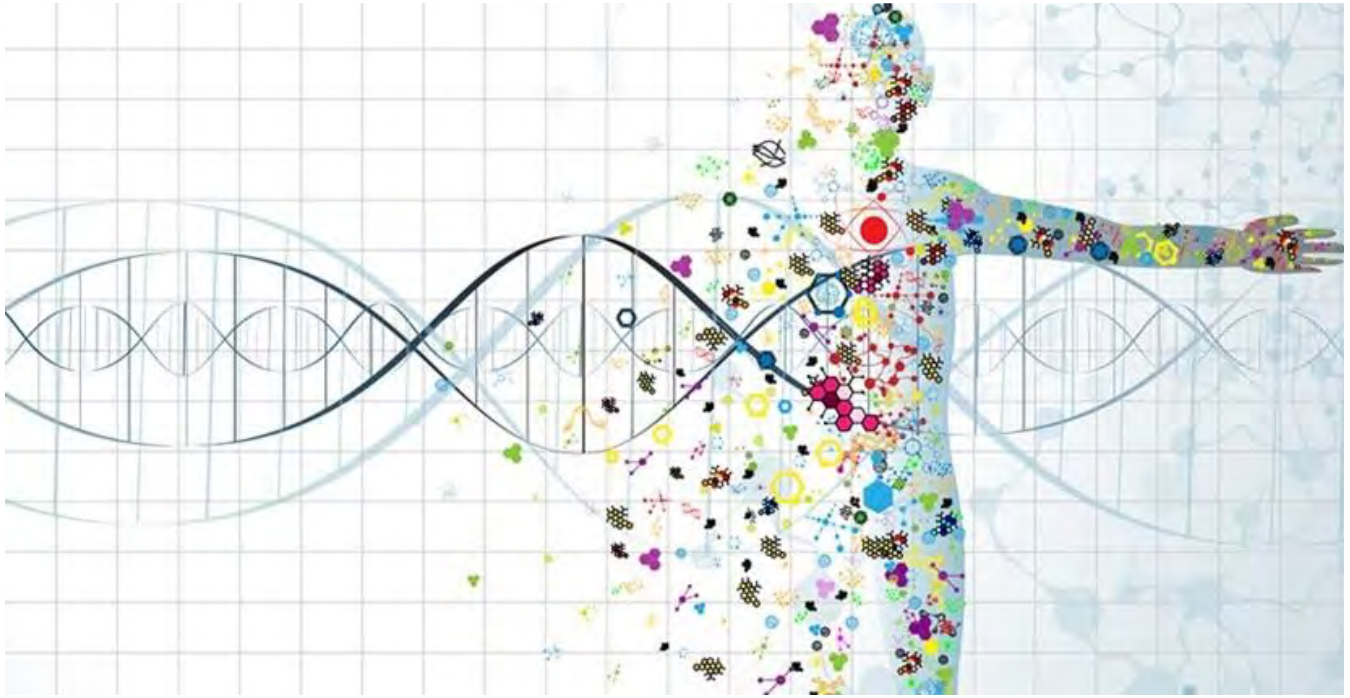
In terms of managing resources, the institute's research affiliates will continue to seek funding from a variety of sources including granting councils and through other opportunities such as the Canada Research Chairs program. We will also pursue revenue generation seeking endowments and enhancing our capabilities to provide research services to others on campus.

In terms of education and training, we will continue to seek opportunities to engage with other units (i.e. other research centres, departments and schools) to provide leadership for the integration of teaching and research in aging.

In terms of knowledge mobilization, we anticipate continuing to engage with local, national and international communities. We will continue to share our research promoting the health and quality of life of an increasingly diverse population of older adults. This in turn will assist their families, health care providers, and policy makers in meeting the challenges and potentials of an aging society.

UVic faculty affiliates are at the forefront of advancing leading-edge research in cognitive health, health behaviors, lifespan determinants of health, health informatics and health systems, technological innovations, end of life care, and data analytics. This exemplary research provides us with opportunities to share knowledge and create new synergies.

In order to move forward, we must first understand where we come from and recognize where we excel. The Institute on Aging and Lifelong Health is celebrating its 25th anniversary this year and this has offered us the opportunity to assess our growth over the years and understand our current capacity. In this Self-Assessment, we have sought to highlight the potential for the next five years while reflecting on the exponential growth we have achieved over the last five years.



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