Research Roundup
SPRING-SUMMER 2015

Research website 2.0 is coming soon: If you’re an Island Health researcher, contact us to get your profile set up and your picture taken!

In this Issue:

- eHOME-iCARE: Using Technology to Improve Caregiving at Home
- Canadian Clinical Trials Asset Map Launched
- Launch of Research Alliance – Frail Elderly
- Researcher Profile: The eHOME-iCARE Team
- Awards and Accolades: Island Health’s Research Support & Catalyst Winners
- Harmonized Ethics Review Pilot Launched for Above Minimal Risk Studies
- Save the Dates: Events and Deadlines
- Island Health Publications

Presentations from Five Days in May 2015 are now online:

eHOME-iCARE: Using Technology to Improve Caregiving at Home

eHealth, email, eHarmony; iPad, iPhone, iWatch… there are a lot of electronic and personal devices around these days. Most of them promise to make our lives easier (or at least speedier), and some might even make
us healthier, but how might they be used to supplement the way we provide care for older adults living at home?

This is the question that the eHOME-iCARE project seeks to answer. The interdisciplinary team of clinicians and researchers from a variety of fields—including aging, mobility/motor control, psychology, computer science, economics and engineering—are developing an integrated suite of technologies that will monitor and predict changes in the health and wellbeing of older adults who live at home. They intend to use those technologies to improve care by providing information and respite to caregivers (whether family members or healthcare professionals).

Ultimately, these technologies plan to extend the length of time people are able to live independently at home—known as aging in place—by providing relief for those who care for them and reducing unnecessary or premature transitions from home and community care to hospital or residential care.

Currently, the team has multiple sources of funding, including two projects funded through Island Health’s internal research granting program:

**Technology Supports for Community-Dwelling Older Adults with Dementia and Family Caregivers**

This project explores the perceptions of care managers and homecare clients about using technology to support individuals with dementia. The project also pilots an integrated system of homecare technologies to collect both continuous data and intermittent cognitive/physiological data from individuals. This data will be used to identify any change or decline in their activity levels or health, allowing caregivers to intervene in time and to make decisions that support the person in their home.

**Modeling Changes in Mobility, Cognition and Daily Activities to Predict Care Needs in Community Dwelling Older Adults Living with Cognitive Impairment**

This project will develop a comprehensive multivariate predictive modelling approach that integrates data from multiple sensors to provide a more predictive metric for adverse events or changes in health status than current
in-home monitoring systems. First, the predictive power of multiple inputs across many domains of health, such as sleep patterns, daily activities, and gait and mobility parameters to identify changes in care status will be examined. Second, measurement of intra-individual variability in addition to assessment of mean-level changes will be analyzed. Measures of intra-individual variability have been shown to be sensitive predictors of risk for adverse events. Third, the team will innovatively combine in-home monitoring integrated data collected both continuously and intermittently.

The team is made up of:

**Cheryl Beach**, PhD, PT (Project Director, Community Care Initiatives, Island Health)

**Debra Sheets**, PhD, MSN, RN-BC, CNE Gerontology and Nursing (Associate Professor of Nursing, University of Victoria)

**Andrew R. Mitz**, MS Electrical Engineering, PhD Neuroscience (Staff Scientist, National Institutes of Health, USA)

**Sandra R. Hundza**, BSc (Physiotherapy), PhD Neuroscience (Associate Professor, Exercise Science, Physical and Health Education, University of Victoria)

**Stuart MacDonald**, PhD Cognitive Aging (Associate Professor of Psychology, University of Victoria)
Marc Klimstra, BKin, Bed, MSc Biomechanics, PhD Neuromechanics (Assistant Professor, Exercise Science, Physical and Health Education, University of Victoria)

Yvonne Coady, PhD Computer Science (Associate Professor of Computer Science, University of Victoria)

Carl V. Asche, MBC, MSc, PhD Health Economics and Outcomes (Research Professor of Medicine and Pharmacy, University of Illinois, USA)

Ravi V. Chacko, BS Biomedical Engineering (MD/PhD Candidate, Washington University St. Louis, USA)

Scott MacDonald, PhD Epidemiology and Biostatistics (School of Health Information Science, University of Victoria)

Stay tuned for more exciting updates from the eHOME-iCARE team as their project progresses, and check out this news release on one of their key partners: the Canadian Longitudinal Study on Aging has now enrolled 50,000 participants.
On June 4, the Canadian Clinical Trials Asset Map was launched. The CCTAM will help Canada market itself as the ideal destination for clinical research. It is a unique, robust, searchable web-based database providing a comprehensive picture of the breadth and depth of Canada’s clinical research assets.

Clinical trials help provide access to new, potentially life-saving medications, vaccines and therapies and support local economies.

The CCTAM is overseen by the Canadian Clinical Trials Coordinating Centre, which was created to implement the Action Plan to strengthen and improve clinical trials in Canada and streamline processes for companies and researchers.

The Action Plan to help attract more clinical trials to Canada was spearheaded by Canada’s Research-based pharmaceutical companies (Rx&D), the Canadian Institutes of Health Research (CIHR), and HealthCareCAN.

Explore the CCTAM online: [http://www.cctam.ca/](http://www.cctam.ca/)

### Launch of New Research Alliance — Frail Elderly

On **Friday May 29, 2015**, Island Health geriatricians Dr. Deviani Maher and Dr. Marilyn Bater successfully launched the **Research Alliance – Frail Elderly**. The alliance is an informal group made up of people from Island Health, academic organizations including the University of Victoria, community
associations, disease associations, and the public. The get-together on Friday gave participants the opportunity to share information about research interests and to explore opportunities with Lauren Weisler and Jennifer Stewart of the Alzheimer’s Society of BC.

Research alliances are a new approach to incorporate multiple perspectives into research. Alliance members will be involved throughout the process, from generating research questions to how to share and use the new information. Some members may wish to be on research teams to shape proposals, while others may only be interested in identifying research topics and questions, or in being part of the group that decides how best to use the findings.

Island Health is very interested in dementia and caregivers as strategic priorities. Improving people's experience with the health system is one of Island Health’s goals, so your perspectives—and the perspectives of those we serve—are very important voices in this process.

+ Are you interested in helping to shape the future of this research alliance? Contact Wendy Young (wendy.young@viha.ca or 1.250.370.8340 ext.18340).
Researcher Profile:
The eHOME-iCARE Team

Dr. Cheryl Beach (Project Director, Community Care Initiatives, Island Health), Dr. Debra Sheets (Associate Professor, School of Nursing, UVic), and Dr. Andrew Mitz (Staff Scientist, National Institutes of Health) of the eHOME-iCARE team share some insights into their research in this Q&A.

**How has your research changed practice?**

Our research will forge a new relationship among caregivers, homecare clinicians and technology. Our research is changing practice by supporting caregivers with technologies that can alleviate caregiver burden. We view technology as a benevolent force that can maximize health and wellbeing by monitoring, anticipating and supporting care needs. One of the hallmarks of wellbeing is adaptation to change, and technologies support adaptation to chronic disabling conditions that are common in the later years. We hope our research into technology will allow seniors to participate in meaningful activities that matter to them, and will foster autonomy and independence.

**What are the challenges or benefits of conducting research in the region?**

Vancouver Island is a natural laboratory for research with seniors, and we’re
fortunate to work in an integrated healthcare system that recognizes that progressive healthcare programs in the community can reduce health care costs and improve quality of life for seniors.

Of course, we face the usual challenge of politics, as we would in any large scale healthcare system. It’s also a challenge to work successfully between two different organizational cultures—academic and health authority—and to reconcile their different timelines and perspectives, even with a shared goal. Administrators and clinicians need to understand the research model (and the length of time it takes!), and researchers need a sharp understanding of the critical needs within the healthcare system.

Finally, the kind of work we are trying to do is highly multi-disciplinary and one of challenges here is to build the right team. Until recently, there have not been formalized supports in place for facilitating research with health authorities; the new and developing research department is extremely helpful in advancing research and translating knowledge and innovation into practice.

What’s your favourite thing about living here?

Our mountains and oceans provide many opportunities to be physically active. And of course the nice people and diversity don’t hurt, either!
Awards and Accolades:
Research Support & Catalyst Winners

Do you know about the exciting projects underway to improve care and services for Aboriginal youth, community-dwelling older adults, people who use alcohol and other substances, expectant mothers, and seniors at end-of-life?

Congratulations to this year's successful applicants and team:

- **Carrie Barker**, Coordinator, Youth & Family Substance Use Services: “Becoming and Belonging: Creating Community for Youth Suffering from Mental Health Issues”
- **Cheryl Beach**, Director of Community Care Initiatives, Continuing Health Services: “Modeling Changes in Mobility, Cognition and Daily Activities to Predict Care Needs in Community Dwelling Older Adults Living with Cognitive Impairment”
- **Laurence Bosley**, Director of Addictions Services: “Improving Island Health Alcohol and Other Drug Treatment Services”
- **Nichole Fairbrother**, Assistant Professor, Department of Psychiatry, Island Health/Island Medical Program (UBC): “The Validity of the Childbirth Fear Questionnaire as a Screening Tool for Specific Phobia of Childbirth”
- **Caelin Rose**, Social Programs Officer, Victoria Hospice: “Music Therapy for Seniors at End-of-Life: Strengthening the Evidence Base”

The number of applications to both competitions increased by 55% compared to last year, and all applications were reviewed externally by a panel convened by the Michael Smith Foundation for Health Research. We received a wide range of submissions, and appreciate the efforts and interest of all applicants.

These annual competitions aim to: generate research evidence to achieve Island Health’s strategic priorities; provide protected time to conduct research and enable competitive grant applications; and foster collaboration within the regional research community.
Harmonized Ethics Review Pilot Launched for Above Minimal Risk Studies

The BC Ethics Initiative is pleased to move forward with the pilot implementation and evaluation of the harmonized ethics review model for Above Minimal Risk studies (definition below). This represents a major milestone for the initiative in achieving a faster and more efficient process that encourages multi-jurisdictional research and removes impediments to collaborative studies.

Documents that will inform and assist you with new harmonized processes during the pilot phase can be accessed from the Resources tab of the bcethics.ca website. In particular, please make use of the Cover Sheet, as this will initiate discussion about which Research Ethics Boards need to review your study and will help to determine the Board of Record.

Some of you may already have been involved in harmonized processes during the development phase of the model, and we thank you for the contributions you have already made to refining the process. Of course, your ongoing evaluation of the model is very important to the initiative. If you are involved in a harmonized ethics review, you will be contacted to participate in a survey after the certificate of approval has been issued.

We encourage you to take part, as the data gathered through the evaluation will help us gauge the effectiveness of the model and make improvements.
Please contact Terri Fleming should you have any questions.

Research Compliance and Ethics Manager  
Phone: 250.519.7700 ext 13971  
email: terri.fleming@viha.ca  
Web: www.viha.ca/rdn/research_ethics/

*Above Minimal Risk is defined as research in which the probability and magnitude of possible harms implied by participation in the research is greater than those encountered by participants in the aspects of their everyday life that relate to the research.*

---

**Save the Dates: Events and Deadlines**

**PUBLIC HEALTH SUMMER SCHOOL:**

“Engaging the Public in Public Health”  
July 13-14th, University of Victoria

**Purpose:**  
Engaging the public in public health refers to involving the population in whole or in part with equitable involvement of marginalized populations in public health concerns/issues during processes such as agenda-setting, decision-making, policy-formation, implementation activities and evaluation to potentially improve the well-being of the population.

**Goal:**  
To bring together individuals involved in the delivery of public health activities, to collectively and critically examine engaging the public in public health. At completion, Summer School participants will have attained learning outcomes and increased public health competencies in engagement and collaboration with both the public and partners. The Public Health Summer School welcomes participants from a variety of fields and backgrounds who are working directly or indirectly with public health across our province.

**Details:** For an agenda, registration, and fees, visit:  
http://www.phabc.org/modules.php?name=Summer_School_reg
Pharmaceutical Opioid Mortality

July 17th, 10:00-11:00 am
Royal Jubilee Hospital, Patient Care Centre 169 (Lecture Theatre)
Via videoconference at: CRH Texada Room; NRGH 2050; OHC Denman;
WCGH 2335A; SPH 1363 Classroom; VGH N203 CFAU

Join us for a special Centre for Addictions Research guest lecture by:
Megan McLarnon (Ministry of Health) on Pharmaceutical Opioid Mortality

MINDMERGE: Frail Elderly
Technology Evaluation in the Elderly Network (TVN)
November 9th-10th (venue TBD)

This event will bring together TVN speakers on the topic of the frail elderly. Join us for presentations, conversation, and “lightning round” research matchmaking!

Evidence-into-Practice Poster Awards 2015-2016
Coming this fall! Mark your calendars!

Have you used evidence to improve patient care or quality this year?

Evidence can be data, information, results, or recommendations that you used to make a change in process or practice, and that has had a positive effect on care or service delivery. The change can be big or small, from process improvement to implementing something brand new, as long as you used evidence to initiate it.

This fall, Island Health will launch its annual Evidence-into-Practice Award competition, which aims to celebrate successful knowledge translation strategies and inspire new initiatives by sharing results.
We want YOU to apply if you have:
- **improved** the quality of care or patient experience by synthesizing and applying evidence
- **implemented** new evidence-based policies and processes that decrease costs and improve efficiency
- **developed** innovative ways to put evidence in practice
- **overcome** barriers and challenges to implement sustainable change and improve outcomes

**Application forms** will be available in August.

**Awards:** 3 awards are available - 1 gold award of $750, 1 silver award of $500, and 1 bronze award of $250. Funds can be used for further knowledge translation activities, including printing and media.

**Eligibility:** Island Health employees and affiliated health professionals are welcome to apply. Co-applicants and team members may come from other organizations. Completed and ongoing research, QI, and evaluation projects are eligible; ongoing initiatives must be at a stage where they can demonstrate some measurable impact.

**Questions?** Contact Annie Moore (isabel.moore@viha.ca), Research Education and Grant Facilitator.

---

**Got research results?**

**Share them with your colleagues at Research Rounds!**

**September 2015 – June 2016**

Research Rounds take place on the **second Thursday** of every month from **8:00 am – 9:00 am**. This series aims to:
- meet the educational needs of physicians and other health care providers by offering a forum that showcases current research at Island Health
- build capacity by raising interest and awareness around research and research support
- improve practice by sharing relevant evidence, methods, and findings

If you're interested in sharing your work (completed or in progress), contact Annie Moore (isabel.moore@viha.ca), Research Education and Grant Facilitator.
Recent Research Publications: 
Island Health in the Literature

Thank you to Cliff Cornish, Manager, Library Services, for compiling this list. Contact Library Services to request copies of any of these publications, or to add yours to the list (libsvs@viha.ca).

Island Health-affiliated authors appear below in red.


Lawitz E, Gane E, Pearlman B, Tam E, Ghesquiere W, et al. Efficacy and safety of 12 weeks versus 18 weeks of treatment with grazoprevir(MK-5172) and elbasvir (MK-8742) with or without ribavirin for hepatitis C virus genotype 1 infection in previously untreated patients with cirrhosis and patients with previous null response with or without cirrhosis (C-WORTHY): a randomised, open-label phase 2 trial. Lancet. 385(9973): 1075-86. 2015. doi: 10.1016/S0140-6736(14)61795-5.


1755-599X 2014.