

Research & Innovation

A Year in Review 2024



Table of Contents

- Message from Leadership
- Our Team
- Leveraging Our Strategic Enablers
- By the Numbers
- Research Publications
- Reflections on Research at VHA 2020-2025
- Safer Teams
- Better Care
- Connected System
- Building the Future of Homecare Science
- Innovation

Message from Leadership



KATHRYN NICHOL RN PhD

she/her | knichol@vha.ca President & CEO, VHA Home HealthCare Assistant Professor (status), Dalla Lana School of Public Health University of Toronto Associate Director, Centre for Research Expertise in Occupational Disease (CREOD) Chair, Research Advisory Council The Institute for Education Research (TIER) University Health Network

Fifteen years ago, VHA made a commitment to invest in research to generate evidence to advance home care and the broader health system. Over the years, as our contributions to homecare science have grown, so has our commitment. In 2024, our vibrant Research & Innovation team led 67 active studies focused on better care, safer teams and a more connected health system, published 17 manuscripts, supported 36 academic trainees, fostered 72 research partnerships and tested 4 different in-home technologies. These accomplishments, and others, have informed decision-making, changed policy and improved processes, practices and care. VHA is well-positioned to be a leader in homecare science and in the creation of homecare scientists. We have great ambitions for the future and are excited to call out our ongoing commitment through our new purpose - Care at home. Delivered with heart. Led by science. Enjoy the read!

SANDRA MCKAY PhD MBA

she/her | smckay@vha.ca Vice-President, Research & Innovation, VHA Home HealthCare Assistant Professor (status), Institute for Health Policy Management & Evaluation (IHPME) University of Toronto Adjunct Professor, Department of Physical Therapy University of Toronto Adjunct Professor, Ted Rogers School of Management Toronto Metropolitan University Affiliate Scientist, The Institute for Education Research (TIER) University Health Network Adjunct Researcher, Michael Garron Hospital Toronto East Health Network

As we approach the conclusion of our strategic Research Vision 2020-2025, it's remarkable to reflect on the progress we've made. Over the past five years, we have fostered a culture of inquiry, investing deeply in people, processes, and partnerships to generate high-quality, contemporary homecare data and insights that drive evidence-based decision-making.

Our 2024 Annual Report highlights the tangible impacts of these investments, showcasing a year of outstanding achievements. Our dedicated and passionate homecare scientists have set new benchmarks, including a record number of peerreviewed publications, the successful in-home deployment of innovative technologies that help individuals remain safe in their homes and communities, and the strengthening of partnerships with clients, families, providers, and academic collaborators.

Together, we are shaping a future where home care is recognized as a vital cornerstone of a healthy, integrated healthcare system.

Our Team



Emily King PhD P.Eng.

Director of Research

Assistant Professor (status), Dalla Lana School of Public Health University of Toronto Visiting Scientist, KITE, TRI, University Health Network, Adjunct Assistant Professor, School of Public Health Sciences, University of Waterloo



MHI Head of Innovation

Jordan D'Souza



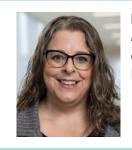
Katherine Zagrodney PhD Senior Research Associate, Quantitative Lead Assistant Professor (status), Institute for Health Policy Management & Evaluation (IHPME), University of Toronto



Sonia Nizzer **MSW RSW** Senior Research Associate, Mental Health Research



Travis Van Belle MPH Research Associate



Pamela Hopwood MSc CIHR Health System Impact Fellow



Alyssa Iglar BASc CIHR Health System Impact Fellow



Emma Perera Research Assistant



Param Sidhu MPH Research Assistant



Kashmeena Mangal Research Assistant



Emmelie Mohammed **BScH** Research Assistant



Rachael Jaffe MSc Research Assistant



Prakathesh Rabeenthira MPH Research Associate



Philip Woode Innovation Associate



Hemantika Mahesh BHS Innovation Intern





Michelle Chen HBSc Innovation Intern



Leveraging Our Strategic Enablers











We RPN











New and established partnerships are essential to influencing decisions that will impact our clients, providers and our ability to deliver services that reflect our vision of home care. They have allowed us to conduct impactful research and broaden the impact of the work that we do together.

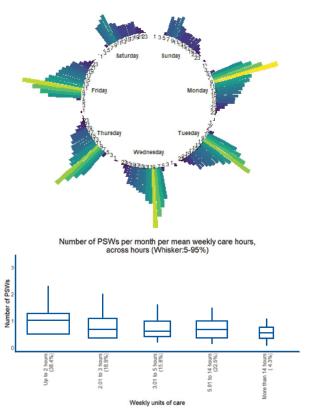
"VHA has been an excellent research partner. The team is innovative, engaged, and collaborative."

- Partner Survey Response

Data First

We have invested substantially in unlocking the power and potential of our administrative data. The tens of millions of datapoints in these datasets have contributed to impactful publications identifying increased risk of hospital readmissions and pandemic impacts on health service utilization and provider availability.

The establishment of the Research and Innovation Network (RAIN) has provided a vehicle to deepen engagement with our client and provider partners. A rich understanding of their experiences continues to drive our work to improve client care and care provider wellbeing.





Future of Homecare Science

We continue to invest in the future of homecare science by creating opportunities for academic scholarship. We have significantly expanded our programs to support a growing number of students and clinical fellows to gain meaningful experience conducting homecare research.

Over the past 5 years, we have supported more than 150 clinicians and trainees to engage in research and development projects related to home care.

By supporting promising early career researchers and a growing number of clinical fellows, we are developing a stronger foundation for expanding the breadth and quality of homecare research.

By the Numbers

Manuscripts published

Active Studies

Clients & providers engaged

36 Academic trainees



Research fellows

Safer Teams

Connected

System

Research

Graduate student fellows



Thought leadership events hosted



Conference

Grants awarded



Grant \$ awarded



RESEARCH PUBLICATIONS



Safer Teams



Shifting the safety culture

King EC, Chan J, Benn A, Van Belle TA, Michener M, McKay SM. (2024). Shifting the Safety Culture: Evaluation of a Novel Approach to Understanding and Responding to Workplace Harassment and Violence Experienced by Homecare Workers. Workplace Health & Safety. DOI: 10.1177/216507992412321

Kalles EA, King EC, Holyoke P. (2024). How High Performing Personal Support Workers Set and Maintain **Boundaries When Providing Care: A Case Study** in Ontario, Canada. Journal of Applied Gerontology. DOI:10.1177/07334648241263500



Facial protective equipment use

King EC, Van Belle TA, Zagrodney KAP, McKay SM, Giosa J, Holubiec I, Holness DL, Nichol KA. (2024 - accepted) Factors influencing Self-reported Facial Protective Equipment adherence amongst Homecare Nurses and Personal Support Workers - A multi-site study. Occupational and Environmental Medicine, doi.org/10.1016/i.giic.2024.06.005

Van Belle TA, King EC, Roy M, Michener M, Hung V, Zagrodney KAP, McKay SM, Holness DL, Nichol KA. (2024) Factors influencing nursing professionals' adherence to facial protective equipment usage: A comprehensive review. American Journal of Infection Control. DOI: /10.1016/i.giic.2024.04.006



Homecare provider occupational experiences

Connelly DM, Garnett A, Prentice K, Hay ME, Guitar NA, Snobelen N, Smith-Carrier T, McKay SM, King EC, Calver J, Sinha S. (2024). Resilience for working in Ontario Home and Community Care: Registered Practical Nurses need the support of themselves, family and clients, and employers. BMC Journal of Health Services Research. DOI: 10.1186/s12913-024-11635-3

Howe A, Tan J, Khan R, Li A, Edwards B, King EC, Nizzer S, Gahar B, Yazdani A, Bani-Fatem A, Cattu V, Sinclair L, Kay M, Nowrouzi-Kia B.(2024). The effects of occupational and mental stress among homecare rehabilitation professionals working during the COVID-19 pandemic: An exploratory qualitative study. Home Health Care Management and Practice. DOI: 10.1177/10848223231225246

Nowrouzi-Kia B, King EC, Edwards B, Nizzer S, Yazdani A, Gohar B, Bani-Fatemi A, Howe AS, Fayyaz Y, Alam B, Khan R, Chattu VK. (2024). Burnout and occupational stress of homecare rehabilitation professionals transitioning out of the COVID-19 pandemic in Ontario, Canada. British Journal of Occupational Therapy. DOI: 10.1177/0308022624126925



Healthcare policy discussions around workplace violence and harassment

King EC, Benn A, McKay SM. (2024) Breaking the silence: Violence, harassment isn't 'just part' of homecare jobs. Healthy Debate. October 8, 2024. healthydebate.ca/2024/10/topic/violence-harassmenthomecare-jobs/



Connected System



Perspectives on innovation in home care

Shaw J, Nizzer S, McKay SM. (2024). Technology, Aging and Home and Community Care: Picking the Right Problems to **Solve.** Healthcare Papers. DOI:10.12927/hcpap.2024.27400



Growing and sustaining the homecare workforce

Bruno F, Nizzer S, Moreira NA, Martin T, King EC, McKay SM. (2024). Developing and Retaining Homecare Nurses **Through Employer-Based Tuition Assistance Programs:** A Mixed Methods Study. Journal of Community Health Nursing. DOI: 10.1080/07370016.2024.2314077

Nizzer S, Baliga S, McKay SM, Holness DL, King EC. (2024). Sustaining a Workforce: Reflections on Work from Home and Community Care Nurses Transitioning out of the COVID-19 Pandemic. SAGE Open Nursing, 10, 1-13. DOI: 10.1177/23779608241264162.

Connelly DM, Guitar NA, Garnett A, Smith-Carrier T, Prentice K, Calver J, King EC, McKay SM, Pearson D, Sinha S, Snobelen N. (2024). A Leave of Absence Might Not Be a Bad Thing: Registered Practical Nurses Working in Home Care During the COVID-19 Pandemic. Home Health Care Management and Practice. DOI:10.1177/10848223241232408

Connelly DM, Guitar NA, Van Belle TA, McKay SM, King EC. (2024). Factors influencing nurses' decisions to leave or remain in the home and community care sector during the COVID-19 pandemic. Healthcare. DOI:10.3390/healthcare12222212



Better Care



Clinical fellowship findings published!

Edwards B, Perera E, King EC, McKay SM, Ruco A. (2024). **Enhancing** Physical Activity Recommendations to Support Cognition in Homecare: A Quality Improvement Project. Home Health Care Management and Practice. DOI: 10.1177/10848223241247837



Evidence to improve bathroom safety

Rand M, Pelchat J, Levine IC, Montgomery RE, Greene RM, King EC, Pong SM, Novak AC. (2024). Efficacy of installation of temporary bathing transfer aids by older adults. Gerontology and Geriatric Medicine. DOI: 10.1177/23337214241237119



Specialized care for individuals with spinal cord injuries

Senthinathan A, Tadrous M, Hussain S, McKay SM, Moineddin R, Chu C, Jaglal SB, Shepherd J, Cadel L, Noonan VK, Craven BC, Tu K, Guilcher SJT. (2024). Examining the impact of the COVID-19 pandemic on homecare services among individuals with traumatic and nontraumatic spinal cord injuries. Spinal Cord. DOI: 10.1038/s41393-024-00999-2

Senthinathan A, Tadrous M, Hussain S, Ahmad A, Chu C, Craven CB, Jaglal SB, Moineddin R, Cadel L, Noonan VK, Shepherd J, McKay SM, Tu K, Guilcher SJT. (2024). COVID-19 and Mortality in the Spinal Cord Injury Population: Examining the Impact of Sex, Mental Health, and Injury Etiology. Healthcare. doi.org/10.3390/healthcare 12192002

VHA Research & Innovation 2024 VHA Research & Innovation 2024 **9**

Reflections on Research at VHA 2020-2025

The long-term impact of our research is built on the strong foundation of infrastructure and programs designed to ensure we listen to our clients, families, providers and data. Central to this is the development of our engagement network, data infrastructure, Fellowship programs and the InnoVHAtion portfolio, which drive our commitment to continuous improvement, innovation, and leading with science.





We created the Research and Innovation Network (RAIN) community to build an ongoing connection with clients, families and providers in all aspects of our work.

Partnering with people who have lived experience of delivering and receiving care brings an essential perspective to the research and innovation process and is vital to creating homecare services that meet the needs of the communities we serve.





Our Innovation team has grown in its ability to deploy new and emerging technologies in the community to support clients and families. Through supporting technology partners to gain authentic real-world data and feedback from clients and families, we support them to ensure that the solutions they create will be successful in the home.

Harnessing our data to lead homecare science



Leveraging our administrative data, we have identified factors which predict homecare clients experiencing hospital readmission within 30 days returning home.





We have created economic evidence to support homecare investment through modeling the impacts of increased PSW wages on retention as a strategy for growing homecare sector capacity.



Families of children with medical complexity have shared their experiences through Photovoice to express what matters most to them in the care they receive.



Fellowships to grow capacity for homecare science



The unique Champions of Change fellowship program provides PSWs and nurses with education and an opportunity to lead improvements to the quality of care and work at VHA.



VHA has invested in professional development for our rehabilitation providers and nurses through engagement in the Sunnybrook/ UHN interdisciplinary quality

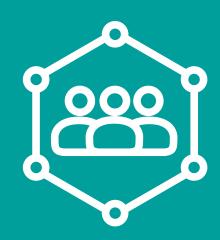
improvement fellowship program.





Through CIHR Health System Impact Fellowships, we have deepened the capacity of promising young scholars to contribute to meaningful applied homecare research.





Safer Teams

To inform enhancements to the work experience of our VHA team, we prioritize internal research questions focused on workplace wellbeing and opportunities for improvements to workplace health and safety.





VHA's evidence-informed approach to workplace safety

Violence and harassment on the job is a widespread and troubling issue in healthcare. Too many incidents go unreported due to a complex interplay of factors, including compassion for clients, a culture of self-sacrifice, a sense of inevitability, lack of confidence in reporting processes, and fear of the outcome.

VHA's research into this challenge led to the development of a streamlined, easy-touse process that encourages more point-of-care providers to report such incidents through an end-of-visit reporting tool. The quick and easy reporting tool also enables providers to communicate information, advice and context to coworkers who serve the same client.

Following a successful pilot, VHA launched the tool across its Personal Support Worker (PSW) teams in 2024 and shared it with the broader healthcare community to help others address this widespread issue.

To complement the release of this tool for PSWs, VHA researchers collaborated with PSWs, supervisors, senior leaders, human resources, a client partner and resource teams from across VHA to develop a restorative response framework for supervisors

to use when addressing reported incidents. This framework creates predictability and transparency for PSWs while helping supervisors to align their responses with clinical best practices and the organization's values.

The framework integrates what researchers learned about providers' preferences and their reasons for not reporting incidents. By ensuring supervisor responses are predictable, it addresses concerns about an uncertain outcome. Incorporating the principles of restorative justice supports the preservation of valued care relationships, promotes healing after challenging incidents, and allows the client and provider to move forward together in a healthier, more trusting manner.

"We're using evidence to open up the conversations around the violence and harassment that point-of-care providers can experience," says Dr. Emily King, VHA's Director of Research. "It is rewarding to incorporate the best practices of colleagues and co-design a resource that will help both providers and their clients."

Supporting our providers' wellbeing

Rehabilitation providers' pandemic experiences

Our studies with the **ReSTORE lab at the University of Toronto** explored the experiences of homecare rehabilitation professionals during the COVID-19 pandemic. Findings highlighted the challenges faced, including exacerbated stressors, resource shortages, and increased workloads. Interviews highlighted the unique challenges of homecare work, the pandemic's intensification of occupational and mental stress, and the coping strategies employed by rehabilitation professionals. The findings contribute recommendations for creating sustainable healthcare interventions.



Supporting homecare nurses' resilience

Through a collaboration with the Connelly Lab at Western University, we explored how nurses working in home and community care build and maintain resilience in their challenging roles. Interviews with nurses, supervisors, and family caregivers revealed the ways that personal and professional resilience are intertwined and influenced by workplace conditions, relationships with caregivers, and self-care practices. The findings highlighted the value of empowering nurses to recognize and address their own wellbeing while navigating the demands of work as a home and community care provider.

Maintaining healthy boundaries

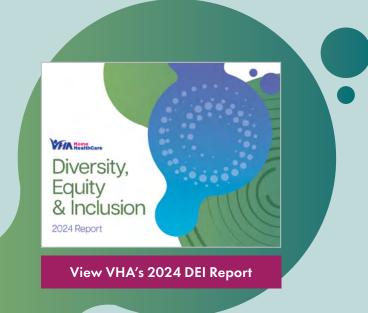
Homecare PSWs regularly collaborate with clients and their family to determine how best to deliver care. Through this work with the **SE Research Centre**, we examined how PSWs manage their professional and personal boundaries through this process. By working with high-performing PSWs and supervisors, we developed a framework outlining common boundary challenges, strategies for decision-making, and practical tactics for maintaining boundaries while ensuring that clients are well supported. The **framework** highlights the supervisory and organizational supports which can help PSWs to do this well.

Research methods to develop deeper operational insights

VHA values our exceptionally diverse workforce and is committed to ensuring that all members of our community feel like they are welcome, heard and treated fairly.

As part of our 'Data First' commitment, we have deepened our collaboration with VHA's Diversity, Equity and Inclusion team, to apply a more sophisticated and consistent approach to the design and analysis of our organizational DEI survey.

Our intersectional analyses have identified the groups at VHA who currently feel least well supported, informing the DEI portfolio's focused engagement strategies.





Better Care

Better care begins with listening and learning from our point-ofcare providers & client partners to understand and improve clinical decisions and the care experience.





The Opportunity for Homecare Nurses to Support the Adoption of **Remote Care Monitoring: Understanding Nurses' Perspectives**

Remote care monitoring (RCM) can help reduce hospital admissions, emergency department visits, and help keep people safe and well at home. However, RCM adoption has not been widespread amongst homecare providers and clients. A trusted healthcare provider has been shown to play an important role in the initiation and maintenance of RCM. Given the close bonds that often form between homecare providers and their clients, we interviewed homecare nurses to understand their perspectives regarding the role they might play in supporting RCM adoption. Findings indicate that nurses would welcome participation in RCM adoption as an extension of their role and a means for improving client safety. They do not see RCM as a replacement for in-person care, nor are they motivated by often-touted benefits of RCM such as cost savings and addressing capacity challenges.

This work demonstrates the importance of incorporating point-of-care provider perspectives into the development of guidelines and implementation of significant technology investments to ensure they are successful and can have a meaningful impact.



Specialized care for individuals with spinal cord injuries

This collaboration with the University of Toronto **OPTI-HEx lab** leveraged ICES data to explore critical healthcare equity issues among individuals with spinal cord injury — a population that faces significant barriers to healthcare access. Findings provide insights into services received and vaccine uptake which can inform strategies to improve healthcare accessibility and equity.



ChartCoach AI

High-quality clinical charting is a valuable communication tool and an essential element of nursing practice. We are developing an Al coach to support chart audits and provide constructive, systematic feedback to support improvements in documentation quality.



Reducing diabetic amputations

Ontario has a high rate of foot and lea amputations in seniors with diabetes, particularly in Black and Indigenous communities. Most amputations can be prevented with early detection and proper foot care. The goal of this partnership with **UHN's TIER** is to facilitate early intervention by training PSWs & community health workers to observe client's feet for signs of diabetes-related complications.



PSW-led mental health conversations

As the providers who see their clients most frequently, PSWs can be well placed to notice when their clients' mental health changes. We are collaborating on this project, led by **SE Research** Centre, to co-design a toolkit that will support and empower PSWs to have conversations about mental health with their clients



Client Experience **Discharge Survey**

VHA Research is supporting our Board and Client Voice Steering Committee's work to refine our client survey program. Our analyses have highlighted opportunities to streamline our surveys while identifying which aspects of their care experiences clients value most.

Personal Support Care Team Continuity

Continuity of care providers is often discussed but rarely quantified. In response to requests from our Operations team, we have created a detailed picture of the high degree of care continuity that VHA creates for our Personal Support clients – enabling the development meaningful metrics





Connected System

Through collaborations with health system partners and academics, we are prioritizing data-informed contributions to public discourse about how home care can best contribute to health system excellence and efficiency.



Supporting Nurse Leaders

This CREOD-funded study explored the workplace experiences of nurse leaders emerging from the pandemic. Four key themes emerged from interviews with nurse leaders. Participants had sought leadership roles to amplify their impact on care and the healthcare system. During the pandemic crisis, they faced challenges adapting to pandemic-related changes in the work required to support their teams, particularly with respect to staff wellbeing. Strategies such as maintaining personal boundaries and accessing peer and senior leadership support helped mitigate the personal toll that they experienced. As they emerged from the pandemic, leaders expressed pride in their responses and professional growth while emphasizing a need for ongoing workplace supports. Recommendations included support for fostering healthy boundaries, enhancing peer connections, and enabling information sharing to better support nurse leaders.

These measures can help nurse leaders thrive, ensuring they remain effective sources of support for their teams during challenging times.





Codesigning Support

In response to the opportunities that nurse leaders identified for enhancing organizational supports, WeRPN has funded VHA's work with nurse leaders at VHA and throughout Ontario to co-design a toolkit to enhance peer support and information sharing. The co-designed prototype has been positively received in presentations at the Ontario Community Support Association's Community Connect Conferences and WeRPN's Research Day. We look forward with our internal and external partners to implement this concept.



Registered Practical Nurses Association of Ontario

Setting the Standards for Home Care

GROUP* VHA is supporting the CSA Group's creation of its first homecare standards! We are contributing our expertise in multiple ways, with Dr. Sandra McKay vice chairing the CSA's Technical Committee for Home and Community Care Standard Development and Dr. Emily King as a member of the Technical Subcommittee on Equipment and Technologies in Home and Community Care. Dr. King is also a member of the Workplace Violence & Harassment in Health Care Project Advisory Panel, guiding the team conducting research in preparation for a future standard on preventing workplace violence and harassment in healthcare settings.

House Calls

Dr. Flizabeth Niedra and Leslie Coulter from the House Calls team led presentations at the International Conference on Integrated Care and the North American Conference on Integrated Care about our evaluation of the innovative House Calls care model. Attendees were excited to hear how we will leverage ICES data to evaluate the program's impact on clients' hospital use and how long they can remain in the community.





Impacts of work on PSWs' health

Through a new collaboration with ICES and the University of Ottawa, we are exploring the impacts of PSWs' work on their physical and mental health. This novel work will leverage VHA's extensive data holdings to describe PSW work, complemented by ICES data on health services utilization by PSWs.



CONNECTED SYSTEM



Data to change conversations

Contemporary Ontario homecare-specific service utilization data is not publicly available. Through an Applied Health Research Question, we are collaborating with ICES to provide a current picture of publicly-funded home care in Ontario.

This collaboration is profiled by ICES in a video featuring Dr. Sandra McKay, VP Research & Innovation.

WATCH VIDEO >

IC/ES



Building the Future of Homecare Science

We are committed to investing in those who possess the skills, experience and passion required to shape the transformation of home care to be better, safer and more connected.



BUILDING THE FUTURE OF HOMECARE SCIENCE

VHA Fellowships to build the future of homecare science

Creating capacity to do homecare research, both within and beyond VHA, is a cornerstone of our commitment to the future of homecare science.

By providing learning opportunities and supporting our point-of-care providers to engage in discovery, we build capacity within our organization. This year we also celebrate advanced degrees with homecare-focused thesis research conducted at VHA, and the success of VHA staff and students in winning national level recognition and fellowships.

Sustained support for promising work developed through fellowships is an opportunity to deliver on the promise of our research and quality improvement programs. Spread of this work through VHA's practice is evidence of its relevance and resonance.

Developing homecare scientists from within VHA

We are delighted to celebrate the completion of **Tracey Turriff**'s MA in Communications with a Health Communications Specialization from the University of Ottawa. Her VHA-based thesis, mentored by Dr. Sandra McKay, focused on understanding the opportunity for homecare nurses to support the adoption of remote care monitoring by clients.

Travis Van Belle, BASc, MPH, is advancing his professional development through pursing doctoral studies in Occupational and Environmental Health at the University of Toronto's Dalla Lana School of Public Health. His thesis, co-supervised by Dr. Emily King, will focus on understanding the tools and strategies that personal support workers in home care use to advocate for their safety.



VHA Champions of Change Fellowship

We are excited to welcome an expanded cohort of 4 PSW fellows to lead engagement with their peers to inform VHA's approach to personal support scheduling.

Colleen Beaumont
is a PSW with over
13 years of
experience at VHA.
Originally from
Jamaica, she worked as a teacher
before transitioning to home
healthcare. She is excited to
participate in the Champions of
Change Fellowship to exchange ideas
and contribute to positive change.

Linda Dunlop
is a PSW celebrating
10 years at VHA.
Previously a Business
Development
Manager, she became a PSW to
reconnect with hands-on, face-to-face
caregiving. She joins the Champions
of Change Fellowship to advocate for
PSWs, effect change, and help make
VHA a top choice for PSWs.

kaila Jonsen
has been a VHA
Client Choice Award
Winner, coach,
preceptor and PSW
at VHA over the past 7 years. With a
background in research and
innovation in pharmaceuticals, she
joined the Champions of Change
Fellowship to think critically, engage in
dialogue with a broader network and
find solutions that improve the lives of
clients and staff.

Noeline
Nakafeero
has been with VHA
for over 6 years as a
PSW and front desk
receptionist. Passionate and
empathetic, she is committed to making
a difference in clients' and colleagues'
lives. She is honoured to join the
Champions of Change Fellowship to
collaborate with colleagues, advocate
for fair scheduling and support staff
wellbeina.

VHA Graduate Research Fellows

Emily Gorgenyi, BSc is a PhD student in the School of Public Health Sciences at the University of Waterloo. Emily's current research focuses on social prescribing initiatives targeting loneliness and social isolation for community-dwelling older adults living with frailty.

Joanne Ta, RN, BScN
is pursuing a Master of
Science in Nursing at the
University of Windsor. Her
research focuses on
understanding opportunities
to improve homecare nurses'
perceived competence and
self-efficacy related to the delivery
of palliative care services.

Pamela Hopwood, BA, MSc is a PhD candidate in the School of Public Health Sciences at the University of Waterloo. Her research interests include occupational health, health care workers' work conditions.

compensation and social security for non-standard workers, and socio-technological influences on work. Her doctoral thesis will shed light on work conditions for self-employed personal care workers and consider the safety and quality of personal care organized via platforms.

VHA Research & Innovation 2024 **27**

BUILDING THE FUTURE OF HOMECARE SCIENCE

Advancing homecare science through national research fellowships



Dr. Katherine Zagrodney

received the Institute for Work and Health's inaugural Cameron Mustard Early Career Accelerator Award to support an exciting collaboration with ICES and the University of Ottawa to explore the impacts of work on PSWs' health outcomes.

Read more about her work here



Pamela Hopwood

is a CIHR Health System Impact Fellow from the University of Waterloo School of Public Health Sciences. Through her embedded work at VHA, she will contribute to our ongoing focus on workplace violence and harassment prevention.



for Work & Health



Alyssa Iglar

is a CHIR Health System Impact Fellow from the University of Toronto's Department of Mechanical and Industrial Engineering. Alyssa will work closely with the Innovation team using her expertise in implementation science to advance our understanding of the medication technology needs of homecare clients.



Dr. Emily King

was awarded a prestigious AMS-Fitzgerald Fellowship in AI and Human-Centred Leadership in collaboration with the University of Toronto Joint Centre for Bioethics. This two-year program will support her work to explore new opportunities to address the long-standing 'wicked problem' of homecare scheduling though the application of artificial intelligence. By centering the experiences of the people most impacted by homecare scheduling, she will work ensure that the system design aligns with the expectations and priorities of the users.



Spreading and Sustaining Fellowship Projects



Ethics at the Point of Care

Home care is a unique practice environment in which providers, regardless of their role, are routinely encountering the full complexity of clients' health and social needs and are asked for help. These requests can create ethical conflicts and lead to moral distress for the providers when they are unable to meet the client's needs.

Last year's Champions of Change fellows worked with their peers to surface the top ethical challenges that PSWs face at the point of care. Through a powerful presentation to VHA's leadership, they shared the greatest sources of moral distress faced by their peers and the ways in which they wish to be supported by VHA to address client needs safely. VHA has responded by creating direct access for PSWs to refer clients to our intake social worker, by updating and communicating relevant policies, and through ongoing efforts to enhance communication and clinical supports.

Multiplying Mental Health Supports in the Community

2023-24 Collaborative Academic Practice Fellow **Corinna** McMurray has worked closely with VHA's Best Practice and Education department to broaden the reach of the training that she developed through her fellowship. Training materials have been further developed so that mental health champions in each of VHA's service regions can be equipped with a very accessible approach, and a small but mighty toolkit of local resources, when clients present with mental health barriers. In the next phase of the roll-out, Occupational Therapists will receive coaching in this toolkit using a train-the-trainer approach, which will enhance its sustainability and accessibility to all VHA service providers over time.



Fellowship Publication

Dr. Brydne Edwards, an alumna of the Collaborative Academic Practice fellowship program hosted by UHN and Sunnybrook Hospital, has published her fellowship project. Her peer-reviewed paper shares the structure and findings of her quality improvement project, so that others can learn from her work. You can read Dr. Edwards' paper here:

Edwards B, Perera E, King EC, McKay SM, Ruco A. (2024). Enhancing Physical Activity Recommendations to Support Cognition in Homecare: A Quality Improvement Project. Home Health Care Management and Practice. DOI: 10.1177/10848223241247837

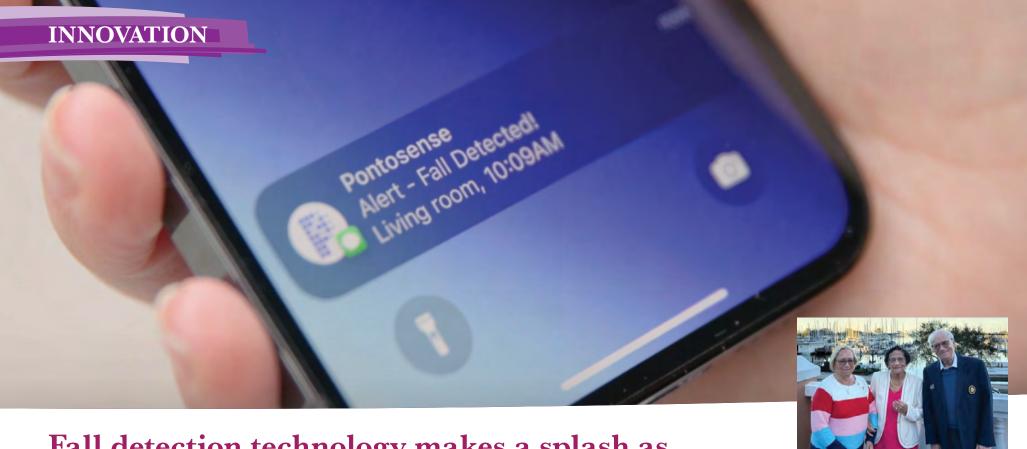




Innovation

Bringing the future of home care closer by enabling the adoption of technologies that create more independence.





Fall detection technology makes a splash as Community InnoVHAtion Lab's first deployment

Susan Vietch with her mother Lucile and brother Charles

The Community InnoVHAtion Lab had a groundbreaking first year in action as a new fall detection technology was piloted across the Greater Toronto Area.

Most older Canadians wish to age in the comfort of their own homes, however, falls pose a critical health risk. When left unmonitored and untreated, falls can reduce quality of life, heighten caregiver responsibilities, and necessitate additional care. This underscores the opportunity for a robust fall detection and activity tracking solution, one that not only addresses the current healthcare challenges faced by seniors aging at home but also ensures their wellbeing for the future.

Through the Community InnoVHAtion Lab program, VHA partnered with Pontosense, a Waterloo-based artificial intelligence (AI) company. Pontosense's wireless sensor system is designed to safely and securely track motion and alert family members and caregivers if a fall is detected. VHA's program bridges the gap between Pontosense

and end users, enabling older adults to experience and test the technology in their home environments

When Susan Vietch, daughter and caregiver for her 106-year-old mom Lucile, heard about the deployment, she was eager to get involved. Lucile lives independently with support from Susan, who lives nearby. Susan had been searching for a solution to monitor her mother's wellbeing at home after a recent fall.

When the project began, Lucile and Susan were one of 15 families to have the Pontosense sensors installed and receive training on the technology and alert system.

Overall, Susan found the software very helpful and practical. Most importantly, the sensors enabled Lucile's family to respond quickly to her falls. While there were a few false alerts that she relayed back to the team, Susan also used the technology to check on her mother's wellbeing overnight.

"It's inspiring to see VHA's Innovation team working tirelessly to bridge the gap between emerging tech and the lived experiences of older adults. Their forward-thinking approach is transforming home and community health, setting new care standards not just for Ontario, but influencing nation-wide healthcare practices." Muxin Ma, Chief Operating Officer, Pontosense

"The VHA Innovation team was great and very responsive to my family's questions and needs. It was a pleasure being part of the program. Now that the pilot has ended, we actually miss using the technology as part of our daily routine," shares Susan.

Over a 6-month period, Susan participated in regular check-ins with VHA's Innovation team as they collected data about her experience, capturing opportunities for improvement, gaps, and wins to share with Pontosense so they could adapt their product to better meet the needs of older adults and their

With feedback from the families who participated, VHA's partnership with Pontosense led to refinements to the product. VHA's continued partnership with technology organizations like Pontosense through the Community InnoVHAtion Lab program is supporting the advancement and quality of technology for older adults, co-designing to better meet the needs of those who need these tools most.

"It's inspiring to see VHA's Innovation team working tirelessly to bridge the gap between emerging tech and the lived experiences of older adults. Their forward-thinking approach is transforming home and community health, setting new care standards not just for Ontario, but influencing nation-wide healthcare practices," says Pontosense's Muxin Ma, Chief Operating Officer.

"Their unwavering commitment to innovation and strategic vision resonates deeply with our goals. With Jordan and his team at the helm, we're confident VHA will transform aging care as we know it."



Innovation Associate Philip Woode shares impact of Pontosense falls detection technology



Research and Innovation Network:

VHA Research & Innovation is committed to integrating client and provider engagement in all aspects of research. Partnering with those with lived experiences of delivering and receiving care brings new and much needed perspectives to the research process and is essential to building inclusive and authentic homecare services that meet the needs of communities we serve.

Join us at researchhelp@vha.ca

INNOVATION Applying technology to the right challenges VHA's Sonia Nizzer and Dr. Sandra McKay partnered with Dr. Jay Shaw from the University of Toronto to present a commentary on ethically appropriate roles for digital technologies to support aging at home. They suggest a holistic approach blending policy initiatives with technological advancements to apply digital innovations where they offer the greatest promise, while remaining focused on the vital role of human caregivers. 34 VHA Research & Innovation 2024

Innovation in Action

Wi-fi lending partnership with the Toronto Public Library

Internet access provides an important gateway to many health and employment services. VHA has partnered with Toronto Public Library and their ongoing Wi-fi lending program to provide clients in need with internet access at home. We look forward to continuing this partnership!





Innovation to support Rehab practice

Head of Innovation Jordan D'Souza mentored a team of Master's of Health Administration in Community Care students from Toronto Metropolitan University to identify opportunities for existing technologies to support homecare rehabilitation providers' practice. Through interviews with providers, they have clarified needs and preferences for technologies to support homecare rehabilitation.



Toronto Metropolitan University

Identifying the right medication support technologies

Many homecare clients struggle to manage their complex medication routines. To create greater independence, we are building a partnership with Dr. Tejal Patel at the University of Waterloo's School of Pharmacy to create a systematic tool for matching clients with appropriate existing technologies, based on their individual needs.





Strengthening Our Foundations

Growth of the Community InnoVHAtion Lab

Our community of client and caregiver partners has grown to 40 members! Increased engagement has been driven by important community implementation projects such as PontoSense. The insights provided by members is vital to our technology partners as they work to prepare their products for commercialization.

Development of standard processes and evaluation protocols

In partnership with the Research team, VHA Innovation is developing a standard evaluation framework and associated metrics. This will support comprehensive, high quality evaluations based on the principles of implementation science.



Innovation **Summer Session**

This session provided a great opportunity to come together in person to highlight VHA Innovation's strong technology partnership pipeline. Our technology partners had the opportunity to showcase their technologies and receive feedback from attendees including client partners, providers and academic partners.









Land Acknowledgement

VHA Home HealthCare would like to acknowledge that we are living and working on Indigenous land. This includes the territories of the Unceded Algonquin Anishinaabe, the Attawandaron, the Anishinaabeg, the Haudenosaunee, the Lunaapeewak, the Mississaugas of the Credit and the Wendat peoples.



Creating More Independence

Contact Us

VHA Home HealthCare 30 Soudan Ave Suite 600 Toronto, ON M4S 1V6

Phone: 416-489-2500

Follow us Online









