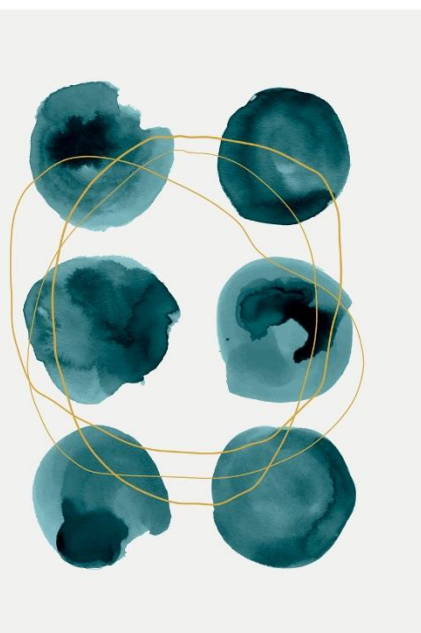


how we work together

THE INTEGRATED KNOWLEDGE TRANSLATION RESEARCH NETWORK CASEBOOK

NO. 5 | 2022



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FOREWORD

Alison M Hutchinson

The Integrated Knowledge Translation Research Network (IKTRN) is proud to present the fifth volume of the integrated knowledge translation (IKT) casebook series. This volume includes nine cases that illustrate how researchers are partnering with knowledge users in the conduct of research, also known as coproduction. In the recently published book, titled *Research Coproduction in Healthcare*, the editors define research coproduction as “a model of collaborative research that explicitly responds to knowledge user needs in order to produce research findings that are useful, useable and used.”^{1 (p.1)} The premise underpinning this approach is that research that is relevant, useful and useable will be more readily and rapidly adopted to realize research-informed improvements and benefits. I belong to a partnership network comprising formalized partnerships between the Centre for Quality and Patient Safety Research in the Institute for Health Transformation at Deakin University and six major health services in the state of Victoria, Australia. In each of the health services is a satellite centre of the larger Centre for Quality and Patient Safety Research. Within and across the satellite centres, researchers work collaboratively with knowledge users to undertake locally relevant research that addresses key problems and questions and meets the health services’ priorities. The researchers also help build research capacity among knowledge users within the health services. This model promotes the conduct of mutually agreed and beneficial research, shared power, shared commitment, shared decision-making and shared knowledge.² It is nearly impossible to create a blueprint for this kind of work because it hinges on the quality of human relationships. The IKTRN cases are so valuable because they pull back the curtain on research partnerships, providing examples of how true collaboration is achieved. In the following pages, the authors share their pearls of wisdom in relation to research coproduction, providing a rich resource from which others can learn and draw.

For success in IKT, case authors describe a number of principles, structures and processes as integral. For example, authors reflect on the importance of establishing *authentic* partnerships based on equity, shared power and authority (Hajas *et al.*; Shahram *et al.*), mutual respect (Hajas *et al.*; Not Deciding Alone Steering Committee *et al.*), and mutual trust (Qadar & Haworth-Brockman). Recommendations include ensuring cultural differences between sectors are recognized (Quinn de Launay *et al.*), achieving alignment with cultural belief systems (Not Deciding Alone Steering Committee *et al.*; Shahram *et al.*), involving Elders to provide guidance (Not Deciding Alone Steering Committee *et al.*; Shahram *et al.*) and adopting a ‘with and for knowledge users’ philosophy (Roberge-Dao *et al.*).

To establish ways to work together, recommendations are made for deliberate efforts to collaborate, identification of mutual interests and a shared purpose (Qadar & Haworth-Brockman; Sibbald *et al.*), ensuring the work is appropriate and mutually beneficial (Not Deciding Alone Steering Committee *et al.*), defining clear roles for members (Hajas *et al.*; Quinn de Launay *et al.*; Shahram *et al.*), creating structures to enable collaboration (Shahram *et al.*; Not Deciding Alone Steering Committee *et al.*), and planning for sustainability (Recsky *et al.*). Importantly, the authors of several cases reflect on the need for flexibility (Qadar & Haworth-Brockman; Quinn de Launay *et al.*; Recsky *et al.*; Roberge-Dao *et al.*; Sibbald *et al.*; Singh *et al.*).

At an interpersonal level, authors acknowledged the importance of allowing time to build trust, rapport and meaningful relationships (Quinn de Launay *et al.*), encouraging diverse perspectives (Qadar & Haworth-Brockman; Singh *et al.*) and recognizing the value of each team member and their contribution (Singh *et al.*).

Singh and colleagues provide advice on team composition, with recommendations for inclusion of people with lived experience, as well as multidisciplinary and multisector representation, and allowing for flexibility in membership as work evolves.

To achieve IKT success, authors recommend clear, regular, consistent and transparent communication (Recsky *et al.*; Sibbald *et al.*). Additionally, Roberge-Dao and colleagues recommend the deliberate establishment of common language to facilitate communication and shared understanding. Sibbald and colleagues advance the notion of a plan to address potential cognitive dissonance between knowledge users' experience and researchers' interpretation of data. Authors of several cases identify the challenges to partnering for IKT during the global COVID-19 pandemic (Hajas *et al.*; Shahram *et al.*; Quinn de Launay *et al.*) and described the use of a range of technologies to enable virtual communication and collaboration.

Case authors describe deliberate strategies to optimize the IKT process. For example, to promote equity and reduce power differences between researchers and knowledge users, authors describe the engagement of an external facilitator for meetings (Roberge-Dao *et al.*) or co-facilitation of meetings by partners (Quinn de Launay *et al.*). In efforts to improve processes for collaboration, authors highlight the value of reflection on ways of working together (Not Deciding Alone Steering Committee *et al.*). Practical approaches to eliciting feedback to inform improvements are described, such post-meeting surveys (Quinn de Launay *et al.*), and post-study interviews (Hajas *et al.*). Authors also identify the benefits of longstanding, well-established partnerships, including the ability to have respectful and frank sharing of opinions and needs, and the capacity to rapidly stand-up new projects (Qadar & Haworth-Brockman; Hajas *et al.*; Singh *et al.*).

Within the cases are reports of a range of rewards and benefits from IKT work. These include project-related impacts, such as the production of clinically relevant, feasible outputs that are now widely used in practice (Hajas *et al.*), capacity-building impact (Hajas *et al.*), mentorship of the next generation of leaders (Shahram *et al.*) and informing future work (Recsky *et al.*; Sibbald *et al.*). Additional reported benefits include an increased sense of ownership, among all parties, of the outcomes and outputs, increased empathy for knowledge users' perspectives and a sense of gratification from addressing challenges (Recsky *et al.*).

These cases bring to life real-world experience of partnering for IKT, providing valuable insights into how partnerships can be established, nurtured and sustained and illustrating how such partnerships can produce outcomes that extend well beyond an initial project.

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xaʔqanaʔ ʔitkiniʔ *Many Ways of Working on the Same Thing*: Integrated knowledge translation in an Indigenous Nation-based context

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Keywords: Indigenous-led; culturally grounded; co-learning; health systems transformation; integrated knowledge translation

INTRODUCTION

The xaʔqanaʔ ʔitkiniʔ¹ *Many Ways of Working on the Same Thing* research project is an Indigenous Nation-led partnership between Ktunaxa Nation Council, Interior Health, University of British Columbia - Okanagan and University of Victoria. All team members and partners share a long-term goal of centering Ktunaxa approaches to supporting health and wellness in Ktunaxa ʔamakʔis *Ktunaxa traditional territory*. This work has broader implications for anti-colonial health systems transformation across Canada and globally. Under the direction of the xaʔqanaʔ ʔitkiniʔ Advisory Group (composed of Ktunaxa Elders, Knowledge Holders and language experts), Indigenous and non-Indigenous researchers co-lead our project in the spirit of reconciliation. Our deep commitment to bringing together researchers, community members and health system partners for co-learning and co-creation of knowledge is an exemplar of integrated knowledge translation.

INITIATING THE PARTNERSHIP

In 2016, Dr. Sana Shahram was completing a post-doctoral fellowship with the Equity Lens in Public Health (ELPH) research program, under the supervision and mentorship of Dr. Bernie Pauly. She was also located within Interior Health's

Population Health and Research teams as an Embedded Health Equity Scholar. Research by ELPH showed that while western health system leaders consistently named Indigenous scholars and Nations as health equity experts, a lack of meaningful collaboration with those same Nations was not recognized as a barrier to advancing health equity.^{2,3} Simultaneously, Ktunaxa scholar, Dr. Christopher Horsethief, was leading efforts within the Ktunaxa Nation to revitalize and re-centre Ktunaxa language, problem-solving systems and science “to develop human capital in a way that's compatible with our traditional practices with the end goal of re-legitimizing our Indigenous systems.”⁴ The Ktunaxa Traditional Knowledge and Language Advisory Council supported and guided these Nation rebuilding efforts with leadership from Hereditary Chief Sophie Pierre. All of this was happening against the backdrop of Interior Health's ongoing journey towards decolonizing health services and improving relationships with the Nations on whose territories the Health Authority provides its services. Through a convergence of these circumstances, the seed of the xaʔqanaʔ ʔitkiniʔ partnership was planted.

Following a pivotal visit with the Ktunaxa Traditional Knowledge and Language Advisory

Council in 2016, the *xax̣qanaʔitkiniʔ* project began with a shared vision for pursuing an equity-oriented, anti-colonial partnership between the Ktunaxa Nation and Interior Health. At the centre of this vision was a conviction that both Indigenous and non-Indigenous people have a role to play in co-designing solutions for decolonizing health systems. Our partnership has been intentionally limited to the Ktunaxa Nation, as previous research projects that involved multiple culturally diverse Indigenous communities inappropriately imposed “pan-Indigenous” concepts, which limited the relevance to Ktunaxa communities. Broad partnerships also often failed to honour the Ktunaxa Nation’s advanced state of readiness to lead research. Horsethief, for example, has contributed to over 20 years of capacity development and nation rebuilding. For the Interior Health partners, the reasoning behind this request was particularly meaningful, as it allows for a deeper understanding of how the colonial health-care system continues to perpetuate inequities and limits culturally appropriate care through pan-Indigenous approaches. As explained by one of our research team members and Interior Health knowledge users, Kris Murray, “This project has enabled us to dig deeper into our partnerships and create space for local conversations and then learn how we can plan collectively to create culturally relevant and equitable health and wellness services.”

Initial gatherings in 2017 were convened with funding and resources from Interior Health’s Aboriginal Health and Research Teams. This supported the team to do the work in ways that respected local protocols, including providing meals for gatherings and appropriate compensation for Indigenous Knowledge Holders who share cultural and linguistic knowledges. Importantly, this preliminary investment of resources helped us overcome the inherent “catch 22” of grant-based research funding: either

engaging in proper consultation and planning without fair compensation (or guarantee of funding) or submitting a proposal without sufficient relationship building and engagement. Too often, reconciliation work demands unpaid and undervalued labour on behalf of Indigenous scholars, Knowledge Holders and communities, and that work is often tokenized or appropriated for the benefit of non-Indigenous groups.

During initial gatherings, it became clear that foundational work was required before moving forward with a research project. As explained by project co-lead Shahram, “While we agreed in principle that we were coming together to share all of our knowledges in an equitable, non-exploitative and non-extractive way, there was little practical guidance on decolonized processes or methodologies...”⁵ In the first phase of our partnership (2018-2020),⁶ we co-developed and piloted a locally specific, culturally informed and community-driven methodology, *xax̣qanaʔitkiniʔ*,^{7,8} as well as a set of protocols for respectful engagement with the Ktunaxa Nation.⁹ *xax̣qanaʔitkiniʔ* was initially translated as *many ways of working together* and later refined by linguist Dorothy Berney from the Kootenai Culture Committee to *many ways of working on the same thing* to represent “many perspectives converging on the exact same property such as a matching pattern, a mirror image or an identical beadwork design.” The *xax̣qanaʔitkiniʔ* methodology re-introduces and re-legitimizes Ktunaxa problem-solving voices in research processes for co-learning between Ktunaxa and non-Ktunaxa knowledge systems. Each knowledge system empowers the other by bridging contexts and worldviews to create shared meaning. This requires an iterative process of gathering, refining and translating research data leading to meaningful co-creation and co-evolution of knowledge.

MANAGING THE PARTNERSHIP

"So many times, the health system says they want to work with us, but really, they're just coming to tell us how things are going to be. We aren't meaningfully part of the decisions or the process, we are just seen as a tick box. I knew this project was different when I saw that we were going to be leading the way forward, with our language and our culture—I knew that our participation was real. And that's been a huge part of the buy-in and success of this project!"
(Hereditary Chief Sophie Pierre)

The x̱aḡqanaḡ ʔitkiniḡ team is committed to equitable participation of all team members and research partners through investing in building local research capacity and upholding Ktunaxa Elders and Knowledge Holders as leaders in problem solving, priority setting and knowledge production and preservation. By hiring community members as research personnel and providing training opportunities to Ktunaxa students and junior researchers, our project contributes to mentoring the next generation of Ktunaxa leaders. The x̱aḡqanaḡ ʔitkiniḡ project is envisioned, guided and named by Ktunaxa Elders, Knowledge Holders and language experts, who now self-identify as the x̱aḡqanaḡ ʔitkiniḡ Advisory Group. Many of these leaders have lived experience and stories of resilience as residential school survivors and/or intergenerational survivors; additionally, they bring extensive expertise and experience in research, business, governance and health.

The COVID-19 pandemic presented unforeseen barriers that affected our ability to meaningfully engage from April 2020 through April 2022. Beyond standard limitations (e.g., travel restrictions, enforced lockdown, institutional policies, resource re-allocation), the community-based nature of our project demanded special consideration for unique factors—most importantly, the need to protect the health of Elders and Knowledge Holders. Shifting to virtual

communication required capacity building and establishing familiarity and comfort with the online platforms for the continuity of our relational structure.

IMPACT OF THE PARTNERSHIP

The following statements provided by our partners validate the strength and impact of our partnership:

"This project has already and will continue to make valuable and important contributions towards truth and reconciliation in Ktunaxa ʔamakʔis and is an exemplar for reciprocal research partnerships elsewhere—demonstrating how reconciliation can live in the process of bringing people together in a spirit of learning and renewing relationships while sparking systems change. The team's ongoing activities and accountability to the Ktunaxa Nation demonstrate commitment to truth and reconciliation beyond lip-service; they embody dedication to action-oriented transformation." (Shawna Janvier, former Chief Administrative Officer, Ktunaxa Nation Council)

"This project strengthens Interior Health's capacity to learn from the Indigenous communities we serve and engage as a meaningful partner in Indigenous-led health systems transformation. This research is integral to our practice as a health authority and will further our abilities to equitably and effectively support wellness for the Ktunaxa Nation and more broadly, for all people in the region." (Susan Brown, President and CEO, Interior Health)

LESSONS LEARNED

The x̱aḡqanaḡ ʔitkiniḡ team recently published a series of guiding principles for research and engagement within Ktunaxa ʔamakʔis.⁶ While developed in the context of the Ktunaxa Nation, the

resource offers insights that can inform other collaborations between community and system partners, with proper contextualization and local consultation. We highlight some of our most transferrable guiding principles below:

- 1 Connection before correction.** Start relationships before conception of the research project and invest appropriate resources to sustain these relationships.
- 2 The journey is just as important as the destination.** Proceed slowly and diligently, with space and time for mutual learning and recalibration.
- 3 Mentor the next generation of leaders.** Research projects are long-term investments and should aim to contribute to meaningful change and capacity building for community members and future generations through mentorship and intergenerational knowledge transfer.

Acknowledgments: *The non-Ktunaxa members of our team extend our ongoing gratitude to our Ktunaxa team members for trusting us, correcting us and teaching us, so that we can walk this journey together. It is never lost on us what a privilege it is to be welcomed into this work and we hope to continue doing this work together and in a good way for many years to come. Our entire team acknowledges with deep appreciation our funders, the Canadian Institutes of Health Research Institute of Indigenous Peoples' Health, with supplementary support from Vancouver Foundation, Michael Smith Health Research BC, the BC SUPPORT Unit and Interior Health. We also acknowledge the contributions of Ms. Leslie Bryant, Interior Health Regional Practice Leader, Research and Indigenous Engagement, who supported early relationship building and project inception.*

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How we work together: Reflections by the Not Deciding Alone team

Not Deciding Alone Steering Committee, Brittany Hesmer^{1,2}, Kimberly Fairman³, Janet Jull^{1,4}

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Keywords: shared decision-making; collaboration; Inuit knowledge; integrated knowledge translation

INTRODUCTION

We are the “[Not Deciding Alone](#)” team, a group of individuals from Inuit-led and Inuit-specific service provider organizations, as well as academic health-care researchers who are active in health-care systems that provide services to communities in the Qikiqtaaluk region of Nunavut and in Ottawa. We share concerns about Inuit access to and uptake of health services. Our team consists of a steering committee, including an Elder, who guide the work, and academic researchers (Dr. Janet Jull, Brittany Hesmer, Kimberly Fairman) who operationalize research tasks. Our team works within an extensive (and expanding) network of stakeholders who have interest in the work that we do.

Through a research project we call “Not Deciding Alone”, we work to enhance opportunities for Inuit to participate in decisions about their health care. Not Deciding Alone aims to support Inuit self-determination¹ through a process called shared decision-making. Shared decision-making is when a person experiencing a health issue and their family members work together with health-care providers to make decisions about their health.^{2,3} Shared decision-making upholds person-centred care and supports positive health outcomes.⁴

INITIATING THE PARTNERSHIP

The partners on our team first met through a series of meetings facilitated by one research team member (Jull). An initial project was conducted years ago by the research team member in collaboration with an urban Indigenous community, Minwaashin Lodge. The focus of the project was the adaptation of a shared decision-making approach.⁵ The researcher shared the shared decision-making approach in meetings for over a year in many settings.⁶ During the year, the researcher met with Inuit service providers who had concerns about how Inuit were treated in the health system.* These Inuit service providers indicated their interest in shared decision-making and volunteered members to participate on a steering committee, which eventually led to a successfully completed project.⁷ The members of our current team built on these positive relationships and the success of the previous projects to develop Not Deciding Alone.⁸ While membership has changed, we have continued to maintain and strengthen our team, network and relationships.

Our team partnerships have been developed and sustained through collaborative and iterative processes, which involve finding ways to maintain our common ground or interests; identification and

* This video shares some of the concerns:
<https://vimeo.com/336452547>

support for participation of team members in project activities; and reflection on agreements and principles about how we work together. The Elder on our team supports our focus on good relationships and work that benefits the community. From the start, we have used an integrated knowledge translation (IKT) approach, which involves engaging knowledge users (those who will use or be impacted by research findings) in the research process.⁹

While our team is united around shared concerns—the health burden assumed by Inuit and the need to enhance opportunities for Inuit to participate in decisions about their health care—it is funding resources that have made it possible for our team to collaborate effectively. Our team has successfully secured funding that allows travel, hosting of meetings, conducting training and providing honoraria to community members and Knowledge Holders. At times, finding the resources for community-centred work was challenging, and the innovation and support of all team members ensured that we continued to move our work forward. For example, team members offered their spaces for meetings, which in the case of health-care provider team members, also helped ensure continuity with client care.

MANAGING THE PARTNERSHIP

We think of the Not Deciding Alone research partnerships as being situated in a web of dynamic relationships. We continue to learn and to be deliberate about the creation of opportunities for engagement with those who may be interested in our work. We consider our approach to the research partnerships to be an organic process that builds relationships progressively within our team and a wider community. Our research partnerships centre on valuing people and their contributions.

Our team partnerships and ways of working together are structured to ensure the inclusion of people from Inuit-led and Inuit-specific organizations. For example, we translate key documents and hold meetings in places where community members meet. The steering committee that governs our work consists of knowledge users who are engaged throughout the entire research project—from conceptualization of ideas through to the dissemination and application of the findings. Our team agreed to adopt an IKT approach for our project, as it builds the opportunity for researchers and knowledge users to work collaboratively, share governance and utilize the expertise that each person brings to the partnership.¹⁰ We are deliberate in the approach to our work, both in how we work and what we aim to accomplish. We regularly reflect on our aims in working together, share updates, contribute knowledge and plan next steps for projects.

Our aim is to conduct the work in a way that creates opportunities for engagement. As many members of our team provide direct service to the Inuit community during the pandemic, we found ways to maintain communications within our team and community networks. For example, we host a Facebook page, website and a newsletter, and present on the work remotely or in-person whenever invited by the community.

We have structured our team and how we work together to centre on relationships. For example, the context for our team spans social (community, academic), geographical (built and natural environments) and health system jurisdictions. Many team members are a part of the Inuit community, and all team members work to support Inuit. Our team is deliberate in our aim to work together and ensure that what we do is appropriate and beneficial to all. While we are united in our

common goals, our team's strength lies in our differences and the genuine interest and enjoyment we have in learning from one another.

IMPACT OF THE PARTNERSHIP

Our work aims to uphold Inuit self-determination in research.¹ Our team partnerships and research processes centre on Inuit societal values and ways of knowing, and they are based on a foundation of Inuit Qaujimajatuqangit (IQ). Inuit Qaujimajatuqangit is a belief system to serve the common good through collaborative decision-making. It is a strengths-based approach to promote Inuit self-determination and self-reliance.^{11,12} Inuit Qaujimajatuqangit guiding principles have been successfully used in other studies that integrate Inuit and Western approaches.¹³ We integrate IQ values through our research activities as they align with our IKT approach and support our collaboration with each

other. We reflect on the research activities and how to do them in a way that follows the guidance of the IQ principles. For example, to reflect the principle of *Innuqatigiitsiarniq* (respecting others, relationships and caring for people), we have a terms of reference document to remind us of our duty to team relationships.

Together, we are learning to work within complex health systems. We shape the conduct of our research to reflect and promote Inuit community approaches to knowledge sharing and skill development. For example, in our most recent study, Inuit talked about how they need more information and opportunities to work with others on the journey to receive health care.⁸ We are now using these stories to guide our work. Team members attribute shared purpose, respect, trust, communication and collaboration to our success (Figure 1).

Figure 1. What makes our team work?



LESSONS LEARNED

Trust is central to our partnerships and comes from the reputation we have with the community and relationships built over years of working together. Our trust in one another and the work that we do is not something we take for granted. Our team is sustained because there is a sense of joy in what we do and happiness that we serve our community.

- 1 Collaborate and stay open to new ways of knowing, being and doing.** We foster a supportive team environment. We understand the importance of taking time to reflect on the complex issues in which our work is situated, and with community members who will ultimately be affected by our work. We work together to create space for different knowledges to co-exist in our work.
- 2 Take a principled approach to research and have clarity on why it is we keep showing up.** We have a strong structure to our work. We are fortunate to have an Elder who opens our meetings and provides guidance.¹⁴ In our team partnership, the IQ principles, in addition to principles we identified as important for our team, guide what we do. Our ultimate goal is to work in ways that support Inuit self-determination in research and society.
- 3 Listen, reflect, innovate and learn together.** We are united and focused on important issues that compel us to work together. When our team meets, we reflect and collaborate on every step of the work. Often, our team members bring in ways of thinking that lead to innovation in our research. We realize that our work is centred on working within a complex and dynamic community and environment.

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(Social) distance brings us together: Case report of a virtual rapid protocol development experience

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Keywords: COVID-19; protocol development; hearing health; integrated knowledge translation

INTRODUCTION

COVID-19 challenged health-care sectors globally, making visible the gaps in knowledge and management. Early in the pandemic there were increasing numbers of case reports and emerging literature indicating a possible association between COVID-19 and audio-vestibular conditions, such as worsening tinnitus (“ringing” in ears), sudden hearing loss, dizziness or balance issues. There was a lack of these types of reports with earlier types of coronavirus (i.e., SARS and MERS). These reports provided not only an opportunity, but the necessity, for a virtual collaborative team to rapidly co-create an assessment protocol for use within the Canadian hearing health-care community. This work combined the knowledge and skills of researchers, otolaryngologists, audiologists, students and a recovering patient. Funding for this work was received through a Partnership Engage Grant from the Social Sciences and Humanities Research Council of Canada (SSHRC-PEG) awarded to Dr. Susan Scollie at the National Centre for Audiology (NCA), Western University.

This project helps to highlight the importance of long-standing and consistent partnerships between researchers, physicians, clinicians, students and patients. The COVID-19 pandemic required fast calls-to-action within health care as

clinical partners with emerging information needs looked to researchers to help uncover possible solutions.

INITIATING THE PARTNERSHIP

The NCA adopted an integrated knowledge translation (IKT) approach to research projects starting in 2008.^{1,2} We have found that collaboration between researchers and knowledge users has resulted in the co-production of trusted research, protocols and products that are more applicable to end users. Because of our long-standing IKT approach we have established partnerships that enabled us to quickly respond to the rising case reports within the audiological community of audio-vestibular symptoms and COVID-19. As researchers, we took this call-to-action related to emerging audio-vestibular issues reported by clinical partners very seriously. We reached out to community partners we have engaged with over the last eight years in other IKT projects and established some new partnerships. We worked previously with otolaryngologists at the London Health Sciences Centre (LHSC) to address several important clinically relevant questions associated with the implementation of cochlear implants and deeply inserted hearing aids in practice. The NCA also has long-standing partnerships with community-based knowledge users in audiology practices, including Hearing

Solutions, which is Ontario's largest independently operated hearing company. Hearing Solutions and the NCA have collaborated on several IKT projects over the years, most recently, in the development and implementation of a new manikin-based training simulator for audiology practice. We augmented these long-standing partnerships by recruiting an additional knowledge user, a clinic owner and audiologist, from a designated COVID-19 "hot spot" in Ontario. We were able to quickly recruit this additional knowledge user because the NCA researchers, who are also audiologists, are well-linked to community partners and train most audiologists in the province through our affiliation with the School of Communication Sciences & Disorders at Western University. Partnerships with practicing audiologists facilitated the recruitment of another knowledge user—a community partner who had the lived experience of audio-vestibular symptom worsening after having had COVID-19. The resulting project team was composed of 12 core members.

Our aims were to: (1) produce knowledge products that could be implemented in clinical settings to facilitate the collection of self-reported patient information about audio-vestibular symptoms and (2) develop an assessment protocol for audiology practice use with these patients. Engaging knowledge users meaningfully takes time, and we were challenged by the short one-year research funding period (February 2021 to February 2022) and the time-sensitive nature of the clinical question. Although we believe in an IKT approach where team members have equal roles, power and authority throughout the research process,³ this may be more difficult to achieve when timelines are tight, and a diverse group of researchers and knowledge users are involved. Perhaps, as Gagliardi and colleagues⁴ posit, "the current version of an absolute partnership is not attainable or even necessary..." (p. 105). It was important to us that we had a diverse group of people on the team and during the project each member

provided value in terms of multiple perspectives for a complex and urgent problem. Due to the tight timelines, in this project perceived "absolute partnership" may not have been achieved (learned from study exit interviews); however, we did obtain important valuable information from each project team member that was used to develop end products.

MANAGING THE PARTNERSHIP

In-person meetings at universities stopped during the COVID-19 pandemic. Clinical practices in otolaryngology and audiology were closed for a time, and then resumed operation with heightened personal protection protocols and equipment in place. Integrated knowledge translation project activities therefore transitioned to using online video-conferencing software (Zoom and Microsoft Teams). The project team (i.e., researchers and knowledge users) met four times via Zoom. The researchers at the NCA met more frequently (once per week), as they had the primary responsibility of analyzing feedback and creating iterative versions of the knowledge products. Video-conferencing eliminated the distance and restriction barriers and enabled us to actively engage with team members. Microsoft Teams was instrumental in that it provided a way of communicating and tracking written communications easily and effectively. Iterative versions of knowledge products were organized and made available for all team members through a shared folder on Teams. Correspondence occurred through Teams, and everyone was able to see and reply to correspondence more easily than if we had used traditional email methods. As we became more familiar with Teams, we often used it for video-conferencing in place of Zoom.

We had previously developed and used questionnaires that facilitate moving between the early stages of the knowledge-to-application cycle, and these proved useful in quickly scaling up our project. Qualtrics online survey software enabled

wide-spread use and distribution of questionnaires with busy team members to obtain important feedback on knowledge products for iterative development. The use of these questionnaires, which could be completed when project team members found time in their busy schedules, reduced the need for more frequent video-conferencing team meetings. Qualtrics was used more broadly towards the end of the project to obtain fast and informative feedback to determine clinical feasibility and utility of the developing products. Easy-to-use graphic design platforms (e.g., Canva) enabled effective knowledge mobilization through the co-creation of knowledge products such as infographics and a magazine.

The project team started with existing clinical case history documents and hearing assessment protocols widely used in audiology practice. We adapted these with information acquired through a student-led review and synthesis of the emerging research literature on audio-vestibular symptoms and COVID-19, with important input and feedback from all project team partners. We tailored the products using eDelphi methods and iterative anonymous Qualtrics surveys from all project team members and group discussions via Zoom until we had two end-products: (1) a COVID-19 case history questionnaire⁵ and (2) a proposed COVID-19 audio-vestibular assessment protocol.⁶ Finally, we assessed the feasibility and usability of the protocol by distributing surveys via Qualtrics to audiologists in practice with Hearing Solutions.

Knowledge mobilization to the broader audiology community happened by putting the information on the Canadian Audiology Association (CAA) website and on Western University's open science platform.

IMPACT OF THE PARTNERSHIP

This socially distanced IKT project demonstrates the importance of existing, mutually respectful, interprofessional partnerships for rapid knowledge

creation and implementation activities.⁴ Here we highlight three main impacts of our partnership.

First, this project had a capacity-building impact, with all team members acquiring new skills and competencies in virtual collaboration. Some core team members at the NCA had knowledge and skills with the online products used (i.e., Zoom, Teams, Qualtrics, Canva), and they were able to coach other team members to effectively use these online platforms. This capacity building may contribute to other successful virtual collaborations in future projects.

Second, our researcher-knowledge user partnership resulted in: (1) the creation of clinically relevant and feasible products that are now being widely adopted in practice and (2) the mobilization of knowledge related to COVID-19 audio-vestibular symptoms across the broader clinical hearing health-care community in Canada. Influential aspects of the partnership that allowed us to achieve these outcomes included the ability to state opinions and needs and share information using relatively assertive language because respectful, professional and interprofessional relationships were already established. Although the COVID-19 pandemic challenged our traditional assumptions and ways of undertaking research, we maintained what we believe was an authentic partnership even in this virtual space.

Third, we evaluated our current partnership, which will inform and strengthen our future IKT partnerships. We conducted exit interviews with project team members to gather their views of the partnership, including areas for improvement for future projects. We learned that regardless of the timeline of the research project, engaging research partners needs to be done in a purposeful way, paying close attention to the ways in which partnerships are formed and active contributions achieved. We have since reviewed some literature to learn how we might better engage with and learn

from our partners *a priori* and throughout the research process. For future IKT projects it is recommended that our teams learn from the work of Mann and Hung⁷ and consider using an Appreciative Inquiry⁸ approach to partnerships using self-awareness, positive collaboration and reflexive practice to build our relationships and our IKT projects.

LESSONS LEARNED

The COVID-19 pandemic created unique, challenging conditions for our IKT partnership. We learned that in these stressful conditions with time-sensitive projects it can be difficult to achieve equal roles, power and authority for team members throughout the research process. Despite these challenging conditions, we were able to draw from our existing partnerships with knowledge users in known “hot spots” and worked to obtain and incorporate important information from all team members. We recommend assigning at least one team member to be responsible for ensuring all voices are heard. Other recommendations for teams initiating and managing IKT partnerships include:

- 1 Use technology to enhance your IKT partnership and activities.** Online video-conferencing, communication, survey and graphic design tools are changing the ability to actively and authentically engage diverse knowledge users in IKT projects and to quickly mobilize knowledge.⁴
- 2 Build on your existing partnerships.** Existing strong, respectful partnerships with members who are knowledgeable about IKT help mobilize projects quickly if the need arises or an emergency occurs. Knowing each team member’s strengths *a priori* can help ensure equitable and appropriate use of resources and skill sets.

- 3 Learn from partners.** Conduct debrief or exit interviews with all partners at the completion of IKT projects to inform improvements to your IKT research processes.

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Leveraging integrated knowledge translation in pandemic times

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Keywords: integrated knowledge translation; partnership building; knowledge translation strategies; infectious diseases; public health

INTRODUCTION

In the early stages of the pandemic, the Canadian Institutes of Health Research (CIHR) announced grants on various aspects of COVID-19 research. All grants from CIHR are required to have either an integrated knowledge translation (IKT) or end-of-grant knowledge translation plan.¹ The National Collaborating Centre for Infectious Diseases (NCCID) partnered on the knowledge translation activities on four COVID-19 related CIHR-funded grants, establishing IKT plans in consultation with principal investigators (PI), researchers and knowledge users. The purpose of this case study is to showcase the IKT partnership-building experiences, how they improved the IKT process and the lessons learned from one of these grant teams.

INITIATING THE PARTNERSHIP

The story of this IKT initiative started in February 2020, when NCCID collaborated as a Co-PI and IKT partner on a CIHR grant. To investigate the psychosocial impact of COVID-19 and the effects of repeated media consumption and health messaging about the pandemic, we performed a comparative analysis between eight jurisdictions globally.²⁻⁶ This was a multidisciplinary project that included representatives from public health, strategic communication, psychology, epidemiology, journalism and political sciences. We applied IKT principles to the entire research process for every step of the project, involving

knowledge users from both academia and policy. We adopted a rigorous partner identification process, followed by a stakeholder engagement session to foster this relationship, and agreed on an IKT action plan led by NCCID.

MANAGING THE PARTNERSHIP

Prior to grant submission, we organized a teleconference between the PI, Co-PIs and the NCCID team to strategically determine an IKT agenda. The Co-PIs represented eight countries who were connected with public health departments and knowledge users and played a pivotal role in relationship building.²⁻⁴ Participation in IKT activities has been opportunistic and enabled team members to contribute relevant knowledge and lead activities based on their priorities and expertise, thus building a sense of ownership.

Early-adopter teams consisted of local knowledge users, including clinical psychologists, psychiatrists, physicians, nurses, social workers and researchers. They integrated with the core team and other early-adopter teams.^{2,4-6} We conducted a pilot survey in the eight countries to engage the public and to establish the face validity of the survey instrument.

The team composition allowed for integration of different perspectives and methodologies and effective and tailored interventions to counter the

spread of health-related misinformation. Knowledge users who were early adopters shared context-specific experiences and learnings regarding how COVID-19 changed the psychosocial profile of populations in different countries and how this research was adopted into meaningful action.

As soon as the grant was awarded, NCCID developed a dedicated web page to describe the project, the methods to be used and the research team. The web page was updated continually, including the results from early pilots of the study. Summaries of the findings, static and interactive infographics and links to research papers were included (see the web page [here](#)⁷). To reach a wider audience, we launched a social media campaign on LinkedIn and Twitter to share the key findings. To inform the public, we prepared media reports highlighting the research findings. Similarly, NCCID disseminated the research findings through the Canadian National Collaborating Centres (CNCC) network. These collaborating centres work in different public health thematic areas and thus reach a broader public health audience.

IMPACT OF THE PARTNERSHIP

Our interactive methods and the principles guiding the collaboration enabled team members to capitalize on the skills and expertise of all involved. The PI, who has years of disaster-related public health experience, greatly shaped the research focus.⁸ The Co-PI from the WHO tailored the project to include the “infodemic” and communication aspects of the research. Each team member devoted significant effort to at least one aim, with the PI coordinating the entire project to guarantee timeliness and uniformity across study elements. Our collaboration, which was already established through the WHO Thematic Platform for Health Emergency and Disaster Risk Management and its research network, facilitated the research and implementation team's

multinational coordination at each step (from protocol validation to dissemination). This network-building allowed us to identify the needs of subpopulations and target health literacy as a priority research theme.⁹ Using established international public health networks, the PI disseminated the findings not only to researchers but also to public health decision makers and practitioners at all levels. We applied multiple knowledge translation strategies to disseminate the findings (e.g., five manuscripts published in high-impact journals; presentations to global stakeholders at two conferences; meeting with public health authorities in participating jurisdictions; press releases). The manuscripts published from this research had been cited more than 80 times by mid-year 2022, signifying significant impact and uptake. At the same time, the results from this project were shared with key stakeholders involved in updating Canada's pandemic planning framework.

The findings and knowledge translation activities of this research project contributed to improving the understanding of how authorities and media delivered the risk information about the COVID-19 pandemic and how it was received, perceived, understood and used by the public. Such knowledge was urgently needed to develop effective social measures to promote public health behaviour and mitigate the negative psychological and behavioural consequences of the COVID-19 pandemic. By the end of 2021, the team delivered a final research report that included the main findings and recommendations to improve future communication strategies that will better consider sociocultural aspects of the outbreak.

The strong partnership building between researchers and knowledge users led to the successful implementation of the IKT framework for this research initiative. The feedback loop developed with this framework helped to provide urgently needed research findings and effective

knowledge translation strategies to meet the needs of the target audience. The researchers, many of whom were also knowledge users, provided much needed feedback, especially in terms of policy gaps and innovative knowledge translation approaches, such as adopting quick policy briefs and policy summaries to share the results with stakeholders.

LESSONS LEARNED

- 1 Embrace flexibility.** While the core team set an initial direction, our project took a different turn that was spurred on by the shared experiences of our early adopters, moving much farther from the initial objectives than anticipated. For example, our early adopter team members suggested new variables such as isolation impact, gender segregation and stress coping mechanisms.
- 2 Find collaboration opportunities within your existing networks to advance a shared goal.** Our team included partners from public health, psychology, behavioural science and communications, resembling a community of practice that successfully created and disseminated knowledge about the psychosocial impact of COVID-19.
- 3 Build on existing relationships.** The foundations of a strong IKT partnership are based on mutual trust and collaboration between team members. Strengthening existing relationships might offer an access point for individuals wishing to collaborate.

This case study is an example of an IKT process that fostered robust collaborations with researchers and knowledge users and led to the recommendations to improve mental health programs in several countries. These varied and audience-specific KT activities have enhanced the uptake of this research project, informing public health at many levels.

Our core team initiated a collaborative partnership that involved international knowledge users and researchers. As the COVID-19 pandemic demanded rapid decision-making from health system leaders, our team realized this opportunity to generate contextualized evidence to address COVID-19 knowledge gaps. With diverse perspectives from research, education and health system administration, the IKT approach enhanced the relevance of the research questions and built a larger capacity in the knowledge creation and translation process.

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Wellness Hub for Shelters: Implementing and evaluating an intervention to support staff wellness, infection prevention and control practices, vaccine confidence and uptake in emergency shelter settings

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Keywords: COVID-19; congregate care; community of practice; quality improvement; integrated knowledge translation

INTRODUCTION

Wellness Hub (WH) for Shelters is a quality improvement initiative to support emergency shelter sites with their COVID-19 response, including staff infection prevention and control practices, vaccine uptake and wellness. The initiative is administered by three organizations: Knowledge Translation Program (KTP), which focuses on implementation of evidence in health-care practice and policy; Inner City Health Associates (ICHA) Population Health Team, which focuses on community-level health promotion for people experiencing homelessness and Healthcare Excellence Canada (HEC); which focuses on improving Canadian health-care quality.

Using an integrated knowledge translation (IKT) approach, the WH for Shelters team works with 15 emergency shelters across four shelter organizations within the Greater Toronto Area to co-develop the program. Two prominent factors have contributed to the success of the WH for Shelters program to date: (1) engaging knowledge users from program development onset and (2) leveraging virtual communication avenues (e.g., email, Zoom).

INITIATING THE PARTNERSHIP

Healthcare Excellence Canada ran [Learning Together](#), a national program focused on strengthening the pandemic response of emergency shelters and substance use facilities. Through this program, HEC established a partnership with the KTP to support residents and staff in congregate living settings during the pandemic and subsequently expanded this partnership to distribute seed funding to Toronto emergency shelters.

The KTP collaborated with ICHA to co-develop and co-lead a local quality improvement program through which the seed funding would be administered (i.e., the WH for Shelters program) due to their expertise in supporting people experiencing homelessness. The KTP and ICHA comprised the WH for Shelters quality improvement project team (hereafter referred to as the “project team”). Together they selected four shelter organizations (i.e., the knowledge users) to explore engagement in the program based on proximity to the Greater Toronto Area and ICHA’s pre-existing relationships.

First, the project team (i.e., the KTP and ICHA) held an introductory collaboration meeting with the leadership from each of the four shelter organizations. These leaders were engaged in an advisory role to ensure the WH for Shelters program was appropriate for, and met the needs of, the emergency shelter setting. We used the following process to organize the initial meeting:

- Inner City Health Associates sent an email to introduce the initiative and invite the leadership to attend the meeting. It was critical that ICHA sent out the invitation to leverage the pre-existing relationships and trust they had built with the shelter partners.
- The meeting was held in July 2021. The KTP team outlined the preliminary plan for the WH for Shelters program, inviting feedback and suggestions to co-develop the plan.
- Leadership from the shelter organizations shared their suggestions and concerns about the program during the meeting and via email. For example, we initially proposed the integration of an immunity research study within the larger support program that would involve collecting biological samples from shelter staff. During the meeting, shelter leadership expressed hesitation with this project component.

The project team developed and modified the program based on the feedback, including removing the immunity study component and delivering the initiative as a quality improvement support program only. The project plan was submitted for quality improvement approval at Unity Health Toronto.

Next, in September 2021, the project team contacted each shelter organization to invite them to participate in the quality improvement support program. We requested a 30-minute call with the same leadership stakeholders at each shelter

organization to review the revised WH for Shelters program, discuss how the project team could best work with their organization and select which shelter sites they wanted to engage in the initiative. One shelter organization highlighted that their preferred way of working was to ensure that all program-related communications were directed to the organization level, not to the individual shelter sites, so that they could streamline any requests and help their sites feel supported.

After each organization selected sites and informed them of the program, the project team reached out to leadership at each site to invite them to enrol. This email included a summary of the WH for Shelters program and an invitation for leadership to join a one-hour onboarding call. Onboarding calls with the sites were held between October and November 2021. During these meetings, the project team provided an introductory presentation and conducted a needs assessment interview focused on the challenges and opportunities the shelter site had experienced throughout COVID-19. Then the sites were asked to complete a survey to collect information about determinants potentially associated with COVID-19 outbreaks at their site. These initial onboarding meetings were critical for establishing rapport and trust. The WH for Shelters program supports officially launched in December 2021.

MANAGING THE PARTNERSHIP

A key component of the WH for Shelters support program is the monthly community-of-practice meetings. Organization- and site-level leadership from the four organizations and 15 participating sites are invited to attend. Each shelter was asked to invite one to three frontline “staff champions” at their site. In addition to providing an opportunity for collaboration and capacity building across shelters, these meetings are a key strategy to maintain the partnership between the project team and the shelter stakeholders.

To ensure the equitable participation of the project team and knowledge users, one shelter site (rotating among sites each month) collaborates with the project team on the co-development and co-facilitation of the monthly session. In preparation for the monthly session, the project team and shelter site have an initial planning meeting to finalize the session topic and format, as well as the roles and responsibilities for content development based on areas of expertise and capacity. Next, we have a follow-up meeting to review the content we developed and confirm our approach to co-facilitating the session. The shelter partners direct the session structure and content. The collaborative approach to community-of-practice session development, along with a feedback survey sent after each session, has allowed us to continuously modify program supports to be highly responsive to the feedback from shelter partners.

The engagement with the shelter partner knowledge users is done virtually due to COVID-19 public health guidance. Virtual engagement increases feasibility for shelter partners to join meetings during their workday instead of commuting to physical meeting locations. Before launching the virtual program, we ensured shelter staff would have the time, space and information technology resources to join virtual meetings on-site during their shift.

IMPACT OF THE PARTNERSHIP

As part of the learning objectives of this quality improvement initiative, we are continuously monitoring and evaluating the WH for Shelters initiative using the RE-AIM framework.¹ This evaluation is ongoing; therefore, no conclusions can be drawn yet about the project outcomes. However, we recognize that the co-creation approach has increased program engagement and improved the program's quality, structure and content. Areas of impact include the following:

- The regular meetings with the shelter organizations were critically important to establish rapport and gain trust and buy-in from the shelter sites and to ensure that supports would be relevant to shelter needs and delivered in a feasible and acceptable manner.
- The onboarding needs assessment interviews and site-level surveys directly informed the program content, which helped ensure that the shelters would be interested in the capacity-building initiatives, including the monthly meetings, which have been rated positively and well-attended to date.
- Anecdotally, those that have partnered with us on the monthly meetings report that they appreciate sharing their perspectives and experiences through this platform and giving their frontline staff the opportunity to share their stories. Shelter staff have also had the opportunity to develop their presentation and facilitation skills through these monthly meetings.

LESSONS LEARNED

- 1 Budget enough time to allow for the development of trust and rapport and to establish meaningful relationships.** We found that relationship development is critical when working with the shelter sector. The sector and its workers continue to experience tokenistic engagement from external organizations (including research institutes) that may lead them to question the integrity and merit of new initiatives. It was critical to maintain transparency and take time to build trust and buy-in for the program. Additionally, we learned that there are cultural differences between hospital and community sectors that must be considered during partnership

development. Further, the agreements and approvals that are required to facilitate partnerships between these sectors can increase project timelines.

2 Begin engagement early and integrate enough flexibility into your project to allow for project changes based on knowledge user input. Initiating engagement with the shelter organizations during the planning phase meant their ideas could be directly integrated into core project objectives and structure, which can be more challenging to revise later. The project team did not receive specific funding to conduct this work as outlined in a grant proposal. Additionally, the scope and objectives of this project met the criteria to receive quality improvement, rather than research ethics board, approval. Both factors further facilitated our ability to be highly responsive to the feedback of our partners without the need to submit grant and/or research ethics board amendments.

3 Provide opportunities for knowledge users to have true co-ownership of as many aspects of the project as feasible. Offering the shelter staff co-ownership of the monthly community-of-practice meetings ensured that their perspectives and experiences drove each stage of project development. While asking for feedback can be beneficial, it can sometimes lead partners to feel constrained with respect to the extent of changes they can suggest, compared to a co-creation approach.

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Intersectoral strategic planning on disability awareness and training activities: An integrated knowledge translation project

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Keywords: inclusive society; awareness and training activities; strategic planning; community organizations; integrated knowledge translation

INTRODUCTION

Physical and social environments restrict the participation of people with disabilities (PWD) in meaningful occupations. Organizations across public, private and civil society sectors offer awareness-raising and training activities to share information and skills, with the goal of decreasing physical and social environmental barriers for PWD. These awareness-raising and training activities aimed at increasing inclusivity can be targeted to specific groups or to the general population. After completing a study on the effects of a disability awareness training activity,¹ Lise Roche (knowledge user and community partner) voiced to Dr. Annie Rochette (researcher) the perceived challenges with disability inclusion activities across different sectors in Quebec. Specifically, she highlighted the lack of collaboration between organizations, the inconsistent information being shared and the questionable use of research-based evidence in the content of activities, concerns that were further echoed by participating knowledge users. Moreover, different organizations were offering similar activities, leading to unnecessary duplication of efforts and the dissemination of potentially conflicting information.

This integrated knowledge translation (IKT) project aimed to: (1) map current disability awareness and training activities in Quebec, (2) collectively reflect on these practices and (3) co-create a theory of change and a five-year strategic plan.² This project consisted of two sequential phases: (1) an environmental scan (web review and interviews) of current practices and (2) a reflection process with an expert facilitator specializing in social transformation. Results are presented elsewhere²; here we discuss the IKT approach used in this study.

INITIATING THE PARTNERSHIP

Four major research centres in Quebec launched a research initiative entitled “Towards a More Inclusive Quebec Society”³ in the fall of 2017 with funding from the Fonds de recherche du Québec targeting intersectoral projects related to disability inclusion. At an initiative launch meeting, community partners, who were invited by the organizers of the research initiative from various industries and services (e.g., transportation, leisure, municipalities, work), shared their respective concerns about inclusion of PWD. One of the participants (Roche), who had a long history of involvement in training activities, was especially

concerned about the fragmented services available for disability awareness and training across the province. This marked the development of the early project idea. One of the researchers in attendance (Rochette) had already collaborated with this partner (Roche) in a previous research project³ and offered to co-lead the development of a research proposal based on the conversations at this meeting.

An Inclusive Society grant was awarded in early 2018 to support this project. The funding opportunity required representation from one partner and two research-related sectors and so the initial core team was composed of Roche, a community leader; Rochette, a health-sector researcher; and Dr. Patrick Fugeyrollas, a social-sector researcher. The core team then invited individuals from various sectors who were involved in disability awareness and training activities as well as researchers with related expertise to join the team and contribute to the writing of the protocol, without any formal agreements outside email confirmations. As the team grew, everyone was invited to ask themselves “who else should be part of the team?” by looking at the list of partner names and affiliations. Other representatives were invited to gather the most diverse and inclusive group possible based on Quebec’s list of recognized functional disabilities (visual, hearing, motor, organic and language impairment). The partner-research team was composed of six researchers and 13 partners identified as key actors in funding, influencing or providing awareness or training activities. These partners from non-governmental, governmental and municipal organizations held high-level administrative roles within their organizations. Many of the partners knew of each other as they were providing similar services but had not necessarily collaborated before.

An executive committee was formed to lead the logistics and administration of the project and was

composed of the two principal investigators, the main community partner (the individual who had voiced the need), the partnership agent working for and mandated by Inclusive Society (whose role is to help manage funded activities), a PhD student in charge of study coordination, a research assistant and the external facilitator in social transformation for phase 2. The executive committee and partners shared the decision-making power together, whereby decisions were discussed until consensus was reached. The executive committee’s role was to plan the meetings, summarize key information and ensure meeting time was used efficiently. In decision-making, the executive committee’s approach was to propose a broad topic of discussion and to encourage open communication and exchange of ideas.

MANAGING THE PARTNERSHIP

It was the executive committee’s mission to be responsive to the partners and work towards their needs. The knowledge-user partners provided feedback on the research proposal as the research question emerged based on their real-world experiences. To enable equitable participation, we introduced each other, set expectations for the collaboration and explained the research methods and theory in plain language. The partner-research team developed and agreed upon the environmental scan questions, and some partners participated in pilot testing to refine the questions. Development of data collection methods (choice of interview format, questions, pilot testing) with partners enabled the generated knowledge to be relevant to their context, which allowed for continued buy-in and allocation of time by higher management to the project. Group reflections and discussions in phase 2 were based on results from this collectively developed environmental scan. This common source of information moderated many of the disagreements, as the group could refer back to the data as a reference point. Throughout the project, the executive committee continually asked partners how their experience

could be improved at the beginning and end of meetings, but also individually, in informal conversations. This way rapid adjustments could be made when necessary. An example of an adjustment was the creation of a lexicon of terms early on to ensure common understanding.

The gathering of partners, who were working separately before this project, was a strategy in itself, as the project became a valuable ground for networking and reflection. We tailored the meeting locations and frequency of meetings to the preferences of partners by always supporting both in-person and online meetings. Over a period of one year (pre-COVID-19), the partner-research team met four times in person (with some attendees online) and three times online. As partners preferred to attend longer meetings less often, in-person meetings lasted about three hours in the morning, which gave the team an opportunity to eat together, have casual conversations and develop meaningful relationships. For those who were unable to attend the group, the partnership agent met with them separately to discuss any updates and to gather their feedback. The partnership agent and the PhD student prepared detailed agendas before meetings and developed summaries after each meeting with partners.

In phase 2, the partners developed the content for the strategic plan. The executive committee appointed an external firm⁴ with experience in social transformation as a facilitator to ensure the equitable participation of partners, as the meetings were more frequent and the intended output was consensus on a five-year strategic plan. This external facilitator aimed to diminish potential research-partner power differentials and gave a legitimate, methodological and more equitable space and voice to all partners. Although they had mediation skills and practice-based experience in facilitating the co-construction of high-level strategic plans, the facilitator was not a disability-

inclusion stakeholder and did not know any of the participants prior to joining the group. As such, they could consider all participants equally and focus on the discussion processes more objectively. The facilitator presented the aims of the meeting, opened the floor for everyone to provide input on discussion topics and noted the contributions of all members on large white boards.

IMPACT OF THE PARTNERSHIP

The partnership influenced the entire direction of the project including developing the research question, developing the interview guide used in the environmental scan and providing feedback on the analysis and interpretation of the findings of the environmental scan. Partners determined the entire content of the theory of change^{5,6} for the five-year plan including strategic objectives, expected outcomes and prioritized actions.

Once the five-year plan had been agreed upon, partners were asked the extent to which they wished to pursue their involvement in implementing the action plan. All partners committed to continuing their engagement in this project and put in place a transitory committee to ensure governance and sustainability. The transitory committee (including both partner and researcher representatives) secured further funding for implementation of the action plan, and the partnerships live on to this day.

Broadly, partners expressed gratitude to the executive committee for increasing the sense of community among actors involved in improving the social inclusion of PWD and for generating pertinent knowledge related to areas for improvement in their area of practice. Partners reported learning about research methods and brought back research findings to their organization to inform strategic development.

LESSONS LEARNED

- 1 Establish a common language and develop a lexicon of frequently used terms at project initiation** to improve understanding, buy-in and inclusion of all. For instance, we defined “awareness-raising and training activity,” “social inclusion” and “disability” at the beginning with all partners, which allowed inclusion of nuances in different scopes of practice.
- 2 Be flexible.** It is critical for the research team to avoid imposing ideas or content on the process and to let go of control. Keeping an open mind to changes in meeting agendas, differences in opinion and variability in the representation of partners (due to contextual changes such as employee turnover) may allow for excellent learnings and growth.
- 3 Trust the expertise of knowledge users.** Throughout the project, we reinforced the idea that research-related resources are serving the community and that the ownership is within the hands of partners. Trust that the people who need it probably know what's best.

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enfants handicap  s en milieu de garde, R  seau national d'expertise en trouble du spectre de l'autisme, Ville de Victoriaville, Institut National pour l'  quit  , l'  galit   et inclusion des personnes en situation de handicap and Regroupement des ressources alternatives en sant   mentale du Qu  bec.

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Integrated knowledge translation in chronic disease management: A success story in primary care

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Keywords: chronic disease management; implementation; interdisciplinary care; primary care; integrated knowledge translation

INTRODUCTION

The prevalence of chronic disease is rapidly increasing in Canada,¹ yet management is complex and requires the coordination of multiple providers across the health system.² Chronic obstructive pulmonary disease (COPD) is among the most complex chronic diseases. Many patients with COPD can better manage their condition with early intervention within primary care.³ In Southwestern Ontario, the Best Care COPD (BCC) program emerged as an interdisciplinary COPD management program situated within primary care with an aim to improve health outcomes while enhancing patient and provider experience. Created by the Asthma Research Group INC. (ARGI), BCC is delivered by health professionals (mainly respiratory therapists or nurses) with their Certified Respiratory Educator distinction. Best Care COPD was created as a standardized care pathway with enhanced education to enable patients and providers to work towards better COPD management.^{4,5} The program has been well-received by patients and providers. To continue to facilitate program growth, ARGI wanted to understand the barriers and facilitators to their program and their team. To do so, the team at ARGI partnered with researchers at Western University. The relationship between the knowledge users at ARGI and researchers at Western University matured into a trusting and mutually beneficial research partnership to the extent that what

started out as a one-off evaluation has expanded to several case studies exploring implementation and sustainability of the BCC program.

INITIATING THE PARTNERSHIP

One of the ARGI leaders and a researcher at Western University met through a research planning meeting. The research team from Western was exploring team effectiveness in a newly developed COPD management initiative.⁶ Inspired by the work and a desire to learn more, the ARGI team connected with the Western team to explore the possibilities for collaboration and formal evaluation of their team function within the BCC program. This was the initiation of this integrated knowledge translation (IKT) partnership.

The knowledge users and the researchers were all eager to learn and improve the quality of care for patients with COPD. The interest and motivation of the knowledge users combined with the expertise of the researchers fostered a dynamic and reciprocal IKT partnership. The knowledge users provided clinical expertise and experience with the BCC program, while the researchers brought evaluation expertise. This combination of perspectives supported a symbiotic relationship where both groups felt equally valued and engaged. Setting the direction for the research team required regular and clear communication.

Communication happened through monthly meetings, email between meetings and ad hoc texts or phone calls when questions or concerns arose. Early meetings and data collection focused on developing a rich understanding of the program, how it was created and its intended goals and objectives.

The first research project began with a single case study (Case Study 1) in 2017, where the focus was the ARGI team function related to BCC delivery. Much of the first year of working together dealt with understanding key players, BCC team function and program development. Findings from this case study highlighted the components that contribute to excellent team performance.⁷

The relationship that began during this initial case established the foundation for the IKT partnership. The researchers provided the knowledge users with empirical evidence to support funding proposals and create the business case for the program. As the program spread, opportunities for future collaboration grew and the researchers and knowledge users worked together to co-design embedded research studies. What started as a one-time study of a regional initiative, rapidly grew into a multi-case study that evolved with the needs of the knowledge users.

MANAGING THE PARTNERSHIP

Case Study 2 (2018-2020), a proof-of-concept study, explored both the implementation of BCC within a new primary care site and the effectiveness of a peer-led implementation approach designed to support program delivery and continuous quality improvement.⁸ This case facilitated trust building and strengthened the IKT relationship simply through increased frequency of meetings and a shared vision of program implementation. Whereas knowledge users were less involved in Case Study 1 (owing to the focus on team functioning), they were more engaged in Case Study 2. Knowledge users played a more

substantial role in the development of data collection tools, data analysis and dissemination. They had an intimate knowledge of the program and the context, and they were able to share emerging ideas and concerns that the research team could incorporate or address. This created a sense of empowerment and support within the IKT partnership. Everyone involved had a shared goal to support and facilitate current and future implementation efforts.

Case Study 3 began in late 2018 with the aim to explore the progressive implementation of the BCC program as it spread across the region.⁹ Case Study 3 was co-designed by knowledge users and researchers based on the work done in Case Studies 1 and 2 as well as the shifting needs of the knowledge users. Grounded in the shifting provincial mandates, an increased focus on the Quadruple Aim was also embedded into the research.¹⁰ Regular and transparent communication has been essential to understand the evolving needs and expectations of the team.

Combined findings from Case Studies 1-3 were used to develop a framework to inform progressive implementation of chronic disease management programs.⁹ In the coming year, we will examine the impact of context on the spread of integrated models of team-based care, describe the peer-to-peer implementation approach used by BCC, examine patients' perceptions of their role within the health-care team and describe factors that impact the sustainability of integrated models of care for chronic disease management in primary care settings. We used a collaborative planning approach to design a new project to understand the applicability of our progressive implementation framework to future implementation of the BCC program.

IMPACT OF THE PARTNERSHIP

The IKT partnership that has developed over the past five years has proven to be mutually

beneficial; it has supported the overall growth of the BCC program and the academic trajectory of the researchers. This partnership has been instrumental to the success of these research projects. The knowledge users have been critical in enabling access to participant populations; without the support of the knowledge users it is unlikely that these participants would have been available. Likewise, the findings from the researchers have helped the knowledge users to continue to grow the BCC program. Researchers have been able to support the knowledge users with data that has contributed to the continued funding of the BCC program. This in turn allowed for continuation of the partnership, resulting in improved study design and knowledge application.

According to traditional academic measures, this partnership has been a success. Together, our IKT partnership has published eight papers and presented 36 times at over 23 different conferences (regional, national and international). Collectively, the IKT partners have secured approximately \$2.5 million in grant funding—including a large CIHR Project Grant, along with several smaller grants. The IKT partnership is now working toward supporting the expansion of the programming beyond COPD to other leading chronic conditions including heart failure. “Best Care Heart Failure” is now part of a recently announced CIHR-funded heart failure network with \$5 million in funding over five years.

This rich learning environment has supported the academic growth of the main partners and countless trainees. So far, 15 trainees have worked within the IKT partnership (including one PhD, three masters, five medical students and six undergraduates). This IKT partnership is also supporting change at the provincial level through engagement with several regional working groups focused on system-level reform.

LESSONS LEARNED

- 1 Be flexible.** It is important to support research partnerships over the long term by adapting the focus of the IKT partnership as the needs of the knowledge users and researchers evolve over time.
- 2 Consistent, transparent communication is essential** to ensure co-production (during all phases of the research including study design, participant recruitment and knowledge use) and leads to mutually beneficial research.
- 3 Beware of “cognitive dissonance.”** Team members should be aware of and have plans to mitigate moments when the knowledge users and researchers interpret the data differently.

The BCC program remains a stellar example of an effective chronic disease management program within primary care. Clinically, the BCC interdisciplinary team provides a strong foundation for improved patient outcomes and enriched patient and provider education.⁴ As the program grew, the needs of the IKT partnership shifted and this flexibility helped to sustain a relationship that was mutually beneficial. If it were not for the dedication of the program leads to this high-quality program, and their constant drive for quality improvement, our IKT partnership would not have been sustained.

This team has highlighted that communication is essential within IKT partnerships to ensure a research initiative is mutually beneficial for all

parties involved. Having knowledge users that support access to a target population is an essential mechanism to facilitate the research. Knowledge users hold multiple roles; therefore, clear, proactive communication was essential to navigating research study progression in a way that is sensitive to everyone involved. Being upfront and clear on intentions and expectations fostered a supportive and collaborative IKT team that can limit and work through conflicts.

One issue that we have encountered is how to balance cognitive dissonance that arises when knowledge users and researchers interpret the data differently. We would advise future teams to consider this from the outset and create clear procedures and expectations among the IKT team for handling potential discrepancies. Cognitive dissonance arose when researchers' interpretation of the data did not match the contextual experience and understanding of the knowledge users. We found that transparent communication and frequent discussions could overcome these challenges and support the continued growth of the partnership and program.

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Using integrated knowledge translation to address technology safety in primary and community care

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Keywords: safety; technology; community care; integrated knowledge translation

INTRODUCTION

This integrated knowledge translation (IKT) project focused on the unintended consequences of technology in primary and community care settings. This case presents the reflections of the doctoral fellow who led the project. For two years this doctoral student was embedded within a community clinical informatics team and carried out four studies that comprised their dissertation research. The community clinical informatics team is responsible for technologies used in the community, public health and primary care settings for a large health authority providing care to a population of 1.2 million. The project aimed to identify safety events related to technology, analyze the events using a sociotechnical framework and co-create a process for improvement based on learning from safety events. Knowledge users from multiple levels of the organization were engaged in the entire process, from planning to dissemination, and findings from the research were taken up in real-time to inform new practices to promote safety in the context of community clinical informatics.

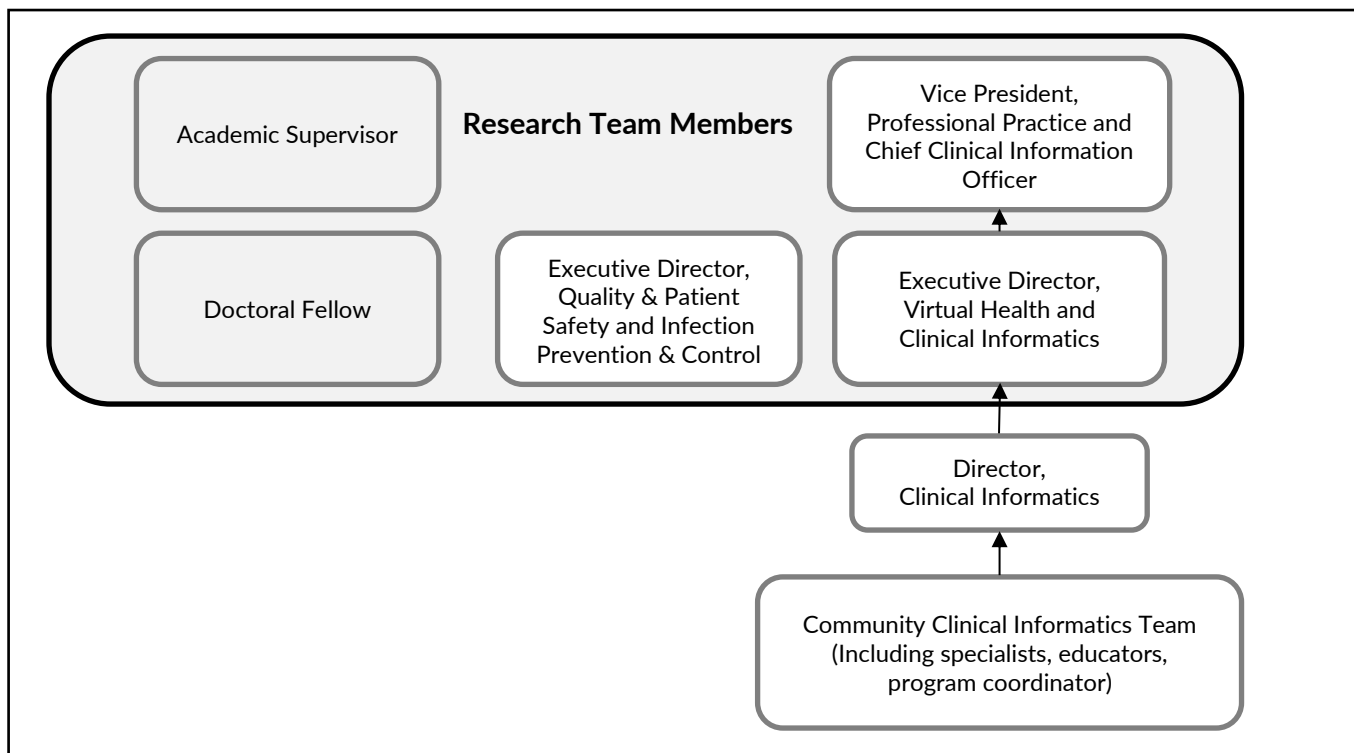
INITIATING THE PARTNERSHIP

This partnership came about because of a doctoral fellowship opportunity focused on IKT (Canadian Institutes of Health Research Health Systems Impact Fellowship). The academic supervisor

initiated discussions with executive health service leaders with oversight of clinical informatics and patient safety about the needs of the organization that fell within the focus of the doctoral student's area of interest. Over a series of three meetings in three months, we developed and refined a proposal for a project that addressed a need within the organization and met the academic requirements of the student's doctoral program. The roles and responsibilities of each person in the proposed project were articulated by the fellowship structure, with the academic supervisor and two organizational supervisors acting as mentors and guides to support the doctoral fellow's leadership of the proposed research and knowledge translation activities.

The application was successful, and the academic supervisor and health service organization partners became the IKT research team for the project. The fellow was strategically embedded within a newly developing community clinical informatics team, and the members of this team were also considered knowledge users. [Figure 1](#) provides a visual of the IKT research team and additional knowledge users. Two additional dissertation committee members were added as per the university dissertation guidelines. They functioned as an advisory body and provided methodological guidance for the project.

Figure 1. Research team



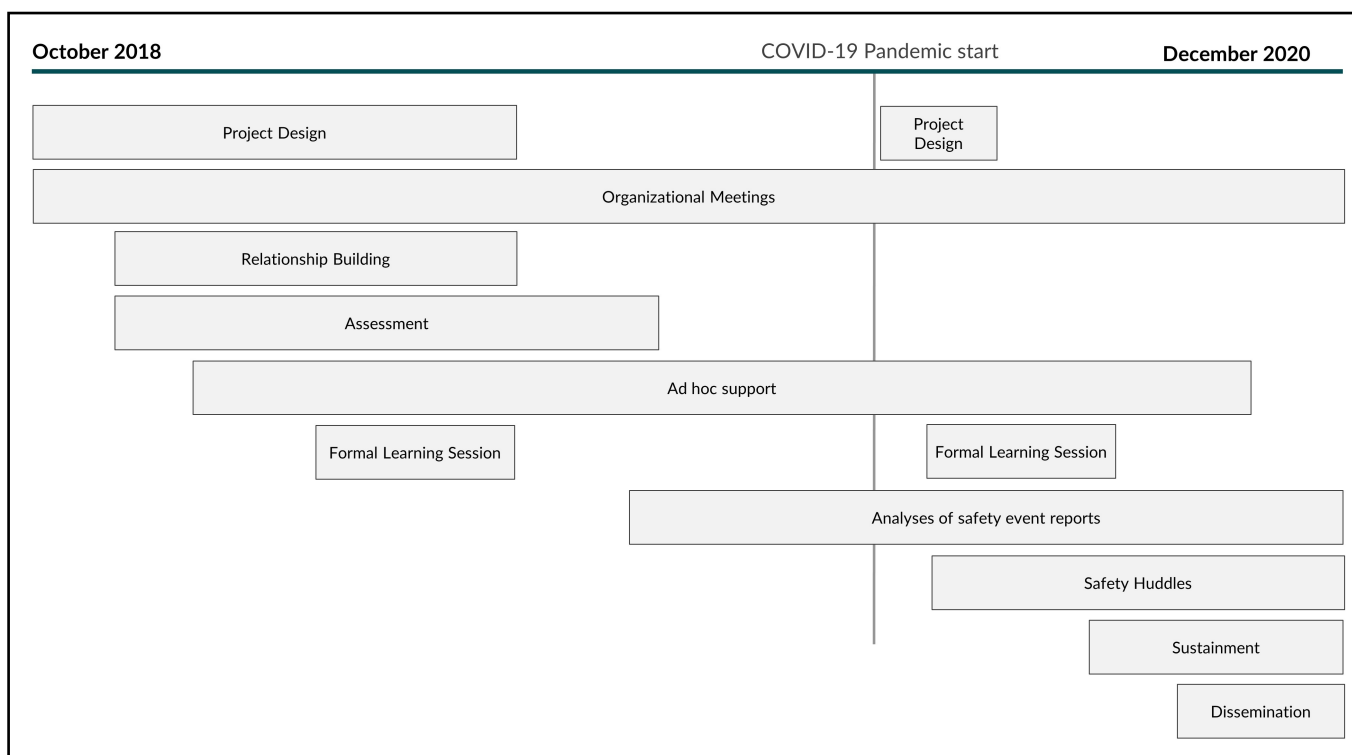
MANAGING THE PARTNERSHIP

Over the two-year period, the knowledge users engaged in many different learning activities and aspects of the research project. The strength of this partnership was largely supported by having the doctoral fellow embedded within the organization for approximately 70% of the fellowship time. Because of this structure, the doctoral fellow had an employee appointment with full access to organizational resources (e.g., email account, office space). Working alongside the community clinical informatics team, the doctoral fellow was co-located with the team, attended team meetings and was able to observe and address team challenges through knowledge translation activities. Working with the members of the clinical informatics team, the doctoral fellow: (1) introduced theoretical knowledge through formal and informal learning sessions, (2) established a process for routing organizational reports of technology-related safety events for the team's review and (3) guided the application of the

learning session content to co-create a process for analyzing the safety events and leveraged these analyses to guide decision-making within the team. The fellow drew on theories of adult learning and improvement science, approaching learning as a process aiming to continuously build on learners' existing knowledge and prioritizing the applicability to the real-world challenges that knowledge users are facing.

The strength of the IKT approach was especially valuable in supporting the continued progress of doctoral work after having been halted by the pandemic in March 2020. For example, during the pandemic, the research team, clinical informatics team and the doctoral committee members were able to pause, pivot and execute one of the four planned studies of the doctoral project, making it more feasible to do during the pandemic and retaining its value to the organization. The timeline of activities in this IKT project is depicted in [Figure 2](#).

Figure 2. Timeline of IKT activities



IMPACT OF THE PARTNERSHIP

The impact of the IKT activities on the knowledge users was explored through a qualitative study at the conclusion of the research project. The members of the clinical informatics team expressed how their participation in the project produced valuable outcomes, such as increased ownership and interest in technology safety, enhanced communication within the team, increased empathy for technology users' perspectives, and direction for future work and strategic planning. Anecdotally, two years after the project's conclusion, the knowledge users continue to use the tools and processes co-created in the project, attesting to the sustained learning and value of the IKT approach.

For the doctoral fellow, conducting this research was a very rewarding experience. It provided an amazing opportunity to further develop academic skills and key professional competencies to maximize the impact of research. Working with

health-care leaders to identify areas for improvement and translate academic expertise to address these challenges was gratifying. Most importantly, being able to work with knowledge users to test and refine evidence-informed approaches reinforced the importance of embedded research in supporting the health-care system.

LESSONS LEARNED

- 1 Plan for adaptability and flexibility.** Having multiple components in the proposed project provided the doctoral fellow and knowledge users in the organization with the flexibility to adapt and focus on different aspects of the entire research project in accordance with the changing needs of the organization. When problems arise, it is helpful to be creative and flexible to find solutions where everyone will benefit. For example, at the onset of the pandemic,

the final study was cancelled and then ultimately revised; greater emphasis was placed on knowledge translation and the timeline was extended to allow the clinical informatics team the necessary focus required by the pandemic response.

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2 Consider what will be a win-win for researchers and knowledge users. The IKT partnership is not a zero-sum game. From the original design of the project to the twists and turns it may take along the way, strong communication with partners and carefully considering the perspectives of knowledge users alongside the research requirements will achieve the best possible outcome for everyone. For example, despite having a demanding role and hectic schedule, one of the organizational leaders who was part of the research team was interested in taking an active role in conducting one of the studies. The doctoral fellow was able to adapt project work in accordance with this leader's skills, interests and availability, involve the leader as their schedule could permit, and help them learn and gain more direct experience in conducting research.

3 Keep sustainability in mind. Working from an embedded position with the knowledge users, the doctoral fellow was able to introduce and support team members to integrate their knowledge into their existing practices in a meaningful way. As new practices were co-created and adopted, the fellow would initially take a leading role and then focus on supporting others, slowly retreating as knowledge users became more capable and confident, until ultimately the practices were fully adopted and sustained by the team of knowledge users.

Partnering for change in fracture management

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Keywords: osteoporosis; fracture prevention; multidisciplinary teams; integrated knowledge translation

INTRODUCTION

Osteoporosis fractures occur spontaneously or following minor trauma. Individuals who sustain these fractures are at high risk of future fractures, leading to progressive disability, chronic pain and decreased quality of life.^{1,2} During post-fracture care, less than 20% of patients receive effective treatments to reduce their future fracture risk.^{3–5} This is the post-fracture osteoporosis care gap. We brought together a team of health providers, decision makers, policy-makers, patient partners and researchers to address the osteoporosis care gap in a health authority in British Columbia (BC). Our team identified Fracture Liaison Services (FLS)^{3–5} as the best evidence-based intervention to address this care gap. Guided by the Knowledge to Action (KTA)^{6,7} model, our integrated knowledge translation (IKT) team successfully implemented, evaluated and sustained the first FLS program in BC.⁸

INITIATING THE PARTNERSHIP

As the project lead, I was inspired to address the osteoporosis care gap after attending the Osteoporosis Canada Fracture Prevention Forum in 2012. After the Forum, I invited 20 health providers, decision makers, researchers and patients to a visioning workshop to explore opportunities for collaboration on a BC-based

strategy to prevent recurrent fractures due to osteoporosis. As a physician and clinical researcher, I had on-going working relationships with all the attendees for at least five years through related activities, including hosting osteoporosis public forums, hip fracture care pathway development, acting as medical lead for a multidisciplinary osteoporosis clinic and as team lead for a fall and fracture prevention research team. I invited people interested in the topic, experienced in working in multidisciplinary teams, willing to engage in consensus decision-making and those with a track record for completing projects. I also sought out people with experience in stakeholder engagement or extensive networking capacity with a variety of stakeholders (health administrators, health-care providers, Ministry of Health staff and the public). Ten of the 20 attendees, including one patient partner, formed the core team and committed to plan a secondary fracture prevention intervention in the Fraser Health Authority. Four team members were knowledge users; one team member was an academic researcher; and five team members were both knowledge users and researchers holding university clinical appointments. We submitted a planning grant proposal to the Canadian Institutes of Health Research. Shortly after submission, I attended the 2012 American Society for Bone Mineral Research Conference and

expanded our partnership to include leading global experts in secondary fracture prevention. These experts agreed to participate as project advisors.

MANAGING THE PARTNERSHIP

The awarding of our planning research grant brought excitement, purpose, direction and resources to our core team. We started our journey by hosting a celebratory gathering with the core team where we reviewed our roles and commitment to a one-year planning process. The grant funded five in-person meetings supported by a project coordinator. Core team members attended all five meetings with additional stakeholders invited as needed. Members of the BC hip-fracture redesign and the BC hip-fracture registry teams were invited to attend the first meeting to ensure that individuals with strong opinions were heard early on. The CEO of Osteoporosis Canada and national and international experts on FLS also participated in the first meeting and continued to advise our team throughout the project.

At each meeting, we reiterated the goals and objectives, provided an update on action items, met at times and locations convenient for all team members, kept to scheduled start and end times and circulated meeting minutes with action items. These activities were important to sustain team engagement. We used sub-committees to break up action items into manageable commitments for busy team members. Co-creation was an integral part of our IKT strategy, with team members involved in planning the agenda, reporting on action items, leading meeting discussions and developing project outputs. This atmosphere of collaboration, an openness to differing ideas, and opportunities for dialogue were essential for working through any differences that emerged.

By the end of the one-year planning grant, we were ready to implement FLS at the selected site, Peace Arch Hospital. Additional funding to launch FLS

was secured from the hospital foundation and a Ministry of Health grant. The most important strategy to support FLS at the site was the creation of a site implementation team composed of a nurse educator, an osteoporosis specialist, the new FLS coordinator, the orthopedic clinic manager, a pharmacist, the project coordinator and the project lead. Other members of the core team participated as needed.

In addition, we hosted four local stakeholder focus groups of five to eight participants each: (1) orthopaedic surgeons, (2) emergency department staff, (3) geriatricians and osteoporosis consultants, and (4) family physicians from each primary care office in the community served by the hospital. Each focus group started with a description of how the osteoporosis care gap affected our patients and how FLS could close that gap. We then explored participants' ideas and concerns for FLS implementation. The project coordinator, the FLS coordinator and the project lead (who took on the role of FLS medical lead for the site) conducted all the focus groups. We hosted focus groups at convenient times and provided dinner in a relaxing environment to sustain participants' energy and active participation. These consultations provided opportunities to build awareness about FLS, understand the local health-care context and learn about the barriers and facilitators to FLS implementation. These learnings were incorporated into our FLS implementation plan.

One key to success for the project was ensuring we had the right people on the team at the right time. The team composition expanded and shifted with different people being more active at specific time points in the project. However, the "glue" sustaining project momentum was the project coordinator and five core team members: the team lead, one manager, one academic, one patient partner and one clinical nurse specialist.

IMPACT OF THE PARTNERSHIP

Each core team member brought important experiences to the table. The patient voice ensured we stayed focused on the motivating goal of improving care and outcomes for all patients. The researchers ensured that our research methods were sound so we could present a strong case for change to decision makers. The health authority and policy team members opened doors to navigate health-care spaces in a timely and effective manner. The site implementation team brought an understanding of context and operations to the core team to ensure that FLS could be integrated into regular workflow. The site implementation team members became equal partners in the broader research team and this inclusion was important to their sense of being valued and their commitment to FLS implementation.

Despite close partnerships with Fraser Health decision makers, our sustainability plan crumbled in 2015 when a complete health authority re-organization took place. This re-organization coincided with the completion of our study demonstrating excellent patient and process outcomes of our implementation of FLS. The team rallied, presenting our findings to senior leadership teams and health authority networks. It became clear that decision-making and fiscal oversight had shifted from regional control back to individual hospital sites. With this new knowledge, we revised our approach and engaged with new decision makers at Peace Arch Hospital. We invited senior hospital leadership to an end-of-project celebration. One director was so convinced by the patient partner story and the study results demonstrating the impact of FLS on patient outcomes, she found a way to fund the program permanently. Our program continues to operate and has spread to other hospitals in BC. Our partnership with this senior leader continues and she has become a strong champion for our team's ongoing FLS spread initiatives.

LESSONS LEARNED

Our IKT research team is a multidisciplinary, multisector partnership with diverse lived experience. Our partnership is strong because of longstanding relationships that we continue to value and foster. We encourage diverse perspectives and recognize the value of each team member's contributions. Active and equal involvement of decision makers and a patient partner was integral to the success of this project. It was critical that we remained flexible in the evolution of the team over time. Team members had varying degrees of involvement at different phases of the KTA cycle, and we engaged new team members to ensure that we had the knowledge and ability to move forward with FLS implementation and to respond to organizational changes. We recommend planning for the long game while staying flexible enough to respond to changes that can occur in the short run.

Top three tips for researchers:

- 1 Ensure that the IKT team has broad multidisciplinary, multisector experience and diverse lived experience.** The lived experience of patients was integral to our success, and we recommend it for all IKT teams.
- 2 Build and maintain long-term partnerships.** Stay connected. Create an ongoing culture of collaboration because there is always more to do.
- 3 Be flexible with team composition.** As your project evolves, your IKT partnerships will also evolve. Bring on new members as required to reach project goals.

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