

Teams, Technology, and Two-Eyed Seeing:

# Bridging Health Care Access Gaps in a Remote Indigenous Community

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## **Rural and remote residents face many barriers in accessing health care, including physical therapy.**

Approximately 20% of Canadian adults report having chronic back disorders.<sup>1</sup> Adults living in rural and remote regions of Canada are nearly 30% more likely to report having chronic back disorders than urban dwellers, with Indigenous people reporting disproportionately higher rates.<sup>1</sup> Limited access to appropriate health care, such as physical therapy, likely contributes to the higher proportion of chronic back disorders among people living in rural and remote communities.

Rural and remote dwellers in Canada have reduced access to physical therapy services compared to those living in urban contexts.<sup>2</sup> Poor geographical accessibility, limited resources to support publicly-funded physical therapy services, and lack of multidisciplinary team support in rural settings are key issues identified by Canadian physicians.<sup>3</sup> In Saskatchewan, 30% of the population lives in rural and remote settings<sup>4</sup>; however, only 10% of physical therapists practice in these communities.<sup>2</sup>

Approximately 5% and 16% of the population in Canada and Saskatchewan, respectively, identify as Indigenous (i.e. First Nation, Métis, Inuit).<sup>4</sup> The majority of Indigenous people live in rural and remote settings (85% of Northern Saskatchewan

residents and 50% in Canada).<sup>4</sup> Given the health care access challenges Indigenous people living in rural and remote locations have amidst the disproportionately higher prevalence of chronic back disorders, developing innovative Indigenous community- and culture-based rural and remote health service delivery options is highly applicable to Saskatchewan and Canada.

Addressing inequities in both prevalence rates of chronic back disorders and access to more appropriate care among Indigenous people requires a greater understanding of the unique characteristics, strengths, needs, and challenges facing Indigenous communities in order to inform tailored strategies. There is a clear need for actively engaging with Indigenous communities to collaboratively develop innovative culture-based rural and remote health service delivery options. Despite the emerging evidence of reduced access to timely, relevant and appropriate physical therapy care among Indigenous populations living in rural and remote locations, there is a paucity of research using strength- and culture-based approaches to care in conjunction with technology.

Little is known about chronic back pain among Indigenous populations in Canada. Research examining back pain among Aboriginal people in Australia found that

the condition can be profoundly disabling and that issues of sex and gender, cultural obligations, and emotional consequences are important considerations for health care.<sup>5</sup>

Indigenous people in Canada have unique historical, psychosocial, cultural, and environmental influences related to general health and wellness that impact health conditions, such as chronic back disorders. Thus, working in partnership with Indigenous communities, building upon their unique strengths, worldview, culture, practices and protocols to enhance health care service delivery in meaningful ways is of paramount importance. Our history of colonization, intergenerational trauma, and racism continue to influence health and wellness among Indigenous people. The Truth and Reconciliation Commission of Canada Calls to Action highlight the impact of colonial policies including residential schools on health and that health care practitioners and researchers must “recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients”.<sup>6</sup>

To address the gaps in access to physical therapy in rural and remote communities, we have developed a unique, community-based interprofessional model of care for people with chronic back disorders whereby an





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urban-based physical therapist joins a rural nurse practitioner and rural patients using Telehealth/secure videoconferencing.<sup>7</sup> In addition to this, we completed a feasibility case study (N=1) using remote presence robot technology and the same interprofessional approach (i.e. physical therapist and nurse practitioner) to manage chronic back disorders with a Northern Saskatchewan community member and care providers at the Angelique Canada Health Centre, Pelican Narrows, SK, Peter Ballantyne Cree Nation.<sup>8</sup> (Pelican Narrows is a Cree community approximately 500 kilometers north-east of Saskatoon with no local availability of physical therapy services). Our findings suggest that these innovative methods of care delivery are feasible, valid, and highly acceptable to participants and health care providers.<sup>8,9</sup>

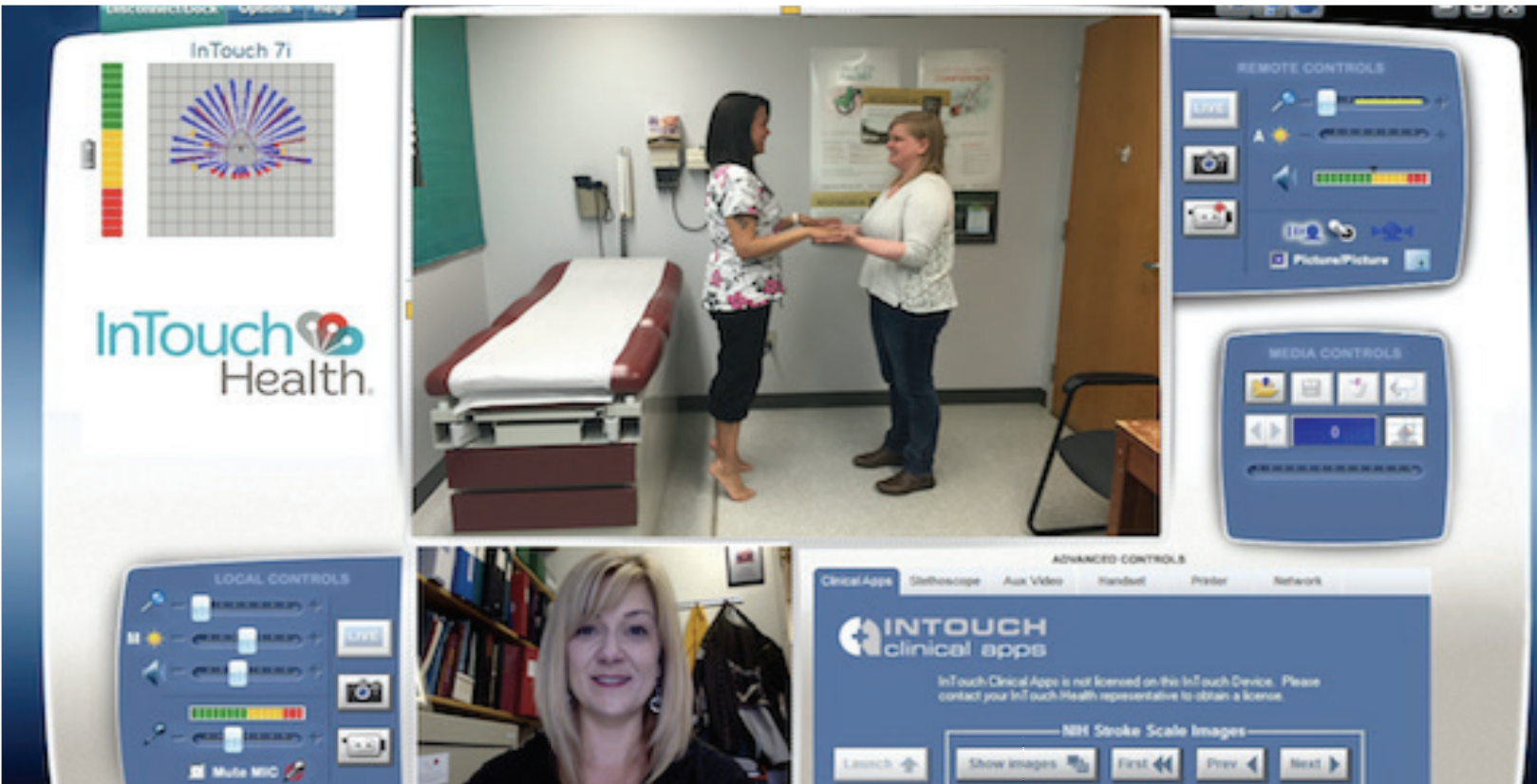
Remote presence robot technology is currently being utilized in remote Northern Saskatchewan communities, including Pelican Narrows, to facilitate emergency, pediatric, and post-surgical specialist care.<sup>10</sup> Other than our published case study,<sup>9</sup> there is no other documented research using remote presence robotics in an interprofessional approach for delivery of physical therapy care. Furthermore, investigation into what modifications and considerations need to be integrated into the delivery and evaluation criteria in a remote Indigenous context has yet to be done.

Our current project is embracing the combined strengths of Indigenous and Western knowledge, using a Two-Eyed Seeing approach.<sup>11</sup> Western-based pain assessment tools and health services evaluation approaches may not accurately reflect Indigenous ways of expressing pain or be most appropriate in measuring effectiveness of a management approach for chronic back disorders.<sup>12</sup> Therefore, Cree community perspectives and experiences inform this project through the use of community-based participatory action research.

Our team is actively engaging with the Cree community of Pelican Narrows and health care providers who work there to: 1) identify Cree community needs and preferences regarding management of chronic back disorders; and 2) determine

the feasibility and acceptability of an interprofessional spine clinic using remote presence robot technology for chronic back disorder assessment and management that honours and builds on Cree community culture, protocols and worldview. We are currently completing the first part of this project, which includes meeting and interviewing Cree community Elders, Cree community members with chronic back disorders, Indigenous and non-Indigenous health care providers (e.g. physicians and nurse practitioners), and administrators. We anticipate completing the second part of the project in 2019 and will be actively pursuing further funding to support continuation of the remote chronic back disorder clinic, including augmentation with in-person physical therapy treatment delivered by a physical therapist travelling to the community.

The partnership approach to the project is helping to build capacity and reciprocity for all involved. Our western-based team is benefiting by learning from, and being guided by, Cree community members who choose to share their knowledge and experiences with us. This will, in turn, strengthen our capacity to respectfully and effectively treat and manage low back disorders among Cree community members within Pelican Narrows and may be applicable and relevant to other rural and remote Indigenous communities in Saskatchewan and beyond. The health care providers involved in this project will gain shared learning and mentorship by working in a collaborative team environment with physical therapists. Community members will benefit by participating in a respectful dialogue about their chronic back disorders and other health needs, as well as having the ability to express how they would like to see care delivered and evaluated, with opportunity for continual input into the research process. All of this will contribute to improved access to care for those living with chronic back pain in the community. Given the access disparity to health services in Northern Saskatchewan, this project will serve as a potential model for enhancing access to physical therapy and other health services in rural and remote regions of Canada and elsewhere with inequitable health service availability in a manner that is culturally appropriate and driven by community needs, with a long-term goal of closing gaps in health care access and health disparities. ■



### About the authors



#### About Stacey

Stacey Lovo Grona graduated in 1995 from the School of Physical Therapy, University of Saskatchewan. In 2003 she completed her MSc in Kinesiology, and in 2018 her PhD in Health Science from the College of Medicine, University of Saskatchewan. Stacey's research interests include the use of teams and technology to enhance access to physical therapy care, musculoskeletal physical therapy, interprofessional models of care and culturally responsive healthcare. Stacey practiced primarily in outpatient orthopedics, and for 11 years in an interprofessional spinal triage unit. She is the Director of Continuing Physical Therapy at the School of Rehabilitation Science, University of Saskatchewan.



#### About Sarah

Sarah Oosman is an Assistant Professor in the School of Rehabilitation Science and a Researcher with the Saskatchewan Population Health and Evaluation Research Unit (SPHERU) at the University of Saskatchewan. She has been a physical therapist since 1998 with clinical experience in both private and public sectors, nationally and internationally. Her research interests include: community-engaged Participatory Action Research in partnership with Métis and First Nations Indigenous communities, implementation and evaluation of culture-based health promoting interventions, and developing cultural humility and cultural safety among health care professionals and our health system. Sarah is a member of the Indigenous Health Subcommittee in the Global Health Division of CPA.



#### About Brenna

Brenna Bath is an Associate Professor in the School of Rehabilitation Science and an associate member of the Canadian Centre for Health and Safety in Agriculture and Community Health and Epidemiology at the University of Saskatchewan. She has been a physiotherapist since 1998 with clinical experience in public and private sector interdisciplinary outpatient orthopedic settings. Her research interests include: prevention and management of musculoskeletal conditions; investigation of health care access disparities among vulnerable populations; and the use of interprofessional teams and technology to overcome barriers to accessing physiotherapy services in rural and remote communities.

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