MAKING WAVES

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DIGITAL HEALTH INNOVATION: WHAT DOES TELEHEALTH MEAN FOR NORTHERN COMMUNITIES?

Over the past several months you have most likely experienced telehealth firsthand whether it was a phone call with your doctor to review test results or renew a prescription, or alternatively, an interaction via a video call to have a virtual assessment. While this might seem like a strange transition from seeing your doctor in person, telehealth has become a common tool that has touched many of our lives now more than ever with the arrival of COVID-19. Staying at home while working, learning, or socializing remotely, and using telehealth (phone, videoconferencing, etc.) to see your doctor, has all been part of our ongoing efforts to protect each other and our healthcare system.

For many northern communities in Saskatchewan, telehealth—or the means of accessing healthcare services and information across distance—has been commonplace for many years to supplement in-person visits with a physician. This is especially the case in some of our more remote regions where doctor visits are few and far between, if not delayed for weeks due to poor weather conditions that prevent doctors from flying into communities. "Doctors days" is a regularly used term that depicts a rotational schedule of physicians visiting communities in person on a particular day or set of days each month.

Northern and Indigenous communities across Canada face well documented challenges in accessing healthcare services prompting an urgency to adopt innovative solutions to overcome these barriers. There are several factors challenging access and delivery of healthcare services for northern and remote Indigenous communities including the concentration of services and facilities in large, urban and southern centres (Laurent, 2002); the vast geography and dispersed population of the Canadian North preventing timely delivery of services (Health Canada, 2008; Romanow, 2002; Sevean, Dampier, Spadoni, Strickland, & Pilatzke, 2008); the shortage of physicians and healthcare providers located in rural and remote communities resulting in under-staffing and limited availability of services (Bosco & Oandasan, 2016; Canadian Institute for Health Information, 2014); the long distances travelled by patients receiving care outside of communities, dealing with harsher climates and limited transportation options, and associated high costs in terms of time, financial and emotional burdens while away from family and cultural/language supports (MacLeod, Browne, & Leipert, 1998; Nagarajan, 2004; Romanow, 2002). The unique challenges faced in northern and remote regions contribute to significant health disparities for local populations compared to urban and southern regions. Telehealth promises to augment services to address these barriers and is increasingly relied upon to bridge healthcare service gaps. In many cases, this delivers as planned. However, the promise of telehealth must be examined further.

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Telehealth is a powerful tool for providing access to healthcare services but there are also critical challenges that have wide ranging policy and governance implications. Specifically, there are notable utilization barriers and structural constraints that challenge its long-term sustainability. Several key insights were learned from community stakeholders who collaborated on a community-based project I conducted for my doctoral research exploring perspectives on telehealth technologies for building capacity in northern and Indigenous communities. Overall, accessing services in the north is challenging and technologies are viewed as enabling access to healthcare services and educational opportunities. Many community members shared that telehealth is an alternate medium viewed as filling healthcare gaps rather than a replacement for services in their communities. Digital health technologies must complement, rather than be a substitute for, trusted care services and relationships. There are clear benefits related to saving time and money for accessing services and expanding access. Using telehealth means being able to stay within communities where family, community supports, and translators are readily available and reduces burdens of taking

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time off from work or finding daycare.

On the flip side, the ability to utilize systems are heavily dependent on the usability of the technologies within their situated contexts and broader social and structural factors that impact implementation and use. Challenges identified in the study range from user-identified barriers such as spatial and technological issues to larger socio-structural problems that impede a functioning and sustainable system. Infrastructure considerations were top of mind. Power outages and slower internet speed or abrupt down-times were not uncommon experiences in some communities. Many of the nursing stations or community clinics had telehealth suites located in multi-purpose rooms such as a kitchen or boardroom, without a dedicated space to conduct telehealth consults. Need and desire for privacy in the physical space where the technology was located created great concern. Even more critical was the need to match technologies to community needs and infrastructure considerations for telehealth to operate smoothly. The study looked at both traditional and stationary videoconferencing telehealth suites to more mobile and flexible remote presence robotics. Differences between these varying systems had clear implications for how the systems would be used and under what circumstances – i.e., more mobile systems allowed for more flexibility in urgent care and emergency situations, while larger, less agile systems were best utilized for scheduled appointments given spatial considerations and difficulties with navigating these larger technologies in smaller clinic spaces. Space needs to be a consideration during implementation and planning.

During the initial implementation of these telehealth systems, telehealth coordinators, on-site facilitators and critical IT positions were lacking or not funded which created severe gaps in support and full utilization of the system. Lacking and stretched human resources is a chronic issue – resulting in nurses and healthcare staff serving as supports and wearing multiple hats to ensure telehealth is operating. Other issues around funding and incentives raise concerns. Moreover, there are challenges with the governance of compensation mechanisms and physician billing, interoperability and connectivity, and jurisdictional barriers. Revealed during discussions were the unintended consequences of jurisdictional boundaries that create unnecessary roadblocks for cross-community and inter-provincial collaboration. Specifically, jurisdictional restrictions that limit telehealth use to only physicians within the province and with provider numbers (excluding privately practicing physicians) limited cross-jurisdictional collaboration needed for telehealth to increase utilization and better serve communities.

What does this all mean? We need to ask northern communities what works for them. Telehealth technology implementation in northern communities cannot be left solely to planning teams and decision-makers who are unfamiliar with these communities, their needs, and experiences. Planning the integration of large-scale systems, especially those that provide services as critical as healthcare, should involve communities directly and fully to better understand the specific needs and existing infrastructure, and to develop long-term plans to ensure sustainability (e.g., human, and financial resourcing, IT supports, and training). It would be a misstep if we assume that northern communities are satisfied with current solutions when their voices have frequently not been included in the detailed planning or design phases of large-scale technical systems. Communities are often excluded from conversations on technology design, adoption and assessment that can determine the suitability of technologies for community needs. When it comes to new technologies, northern governments and healthcare systems should not wait until the technology is viable to test community interest. They need to know what questions people have and what they are concerned about early on, so as to design and deliver the most suitable and effective policy and governance solutions possible.

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