Building a primary care model for rural and remote First Nations

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As with many other Indigenous populations, First Nations communities remain extremely disadvantaged in access to high quality, timely and culturally sensitive health services. Those living in rural and remote areas are at greater risk of burden from chronic disease due to limited access to services, geography, system mistrust and poverty. In this paper, we focus on CSFS' efforts to develop a sustainable, high quality and community-based model of primary care. Specifically, we discuss the program structure, technology, patient access and cultural safety as core to a successful rural indigenous approach to care.

Carrier First Nations

The traditional territory of the Carrier Peoples is a vast area of 76,000 square kilometres spanning nearly from the Rocky Mountains to the Pacific Ocean in North Central British Columbia. Today there are approximately 22 First Nations that identify as being Carrier First Nations. In Canada, Indigenous and Northern Affairs Canada recognises 618 First Nations, with roughly one third located in British Columbia.[1] There are 198 distinct First Nations in B.C. 52 of which are situated in the north, each with their own unique traditions and history. BC has the greatest diversity of First Nations cultures in Canada with seven of Canada's 11 unique language families (more than 60% of Canada's First Nations languages) located exclusively in the province. More specifically, BC is home to over 30 different First Nation languages and close to 60 dialects are spoken. The Carrier People are part of the Athapaskan language family and are divided into a number of language dialects.

Carrier society is matrilineal, although men and women share important roles in the community. For example, both men and women inherit and are groomed to be healers as well as hereditary leaders. Hereditary leadership is sanctioned through the Carrier governance system commonly referred to as the *bah'lats* or potlatch. The *bah'lats* organised around the clan system, is the core economic, political, social, legal and spiritual institution of the Carrier peoples. Generally, there is one head clansman for each primary clan. These positions are passed down through family or clan lineages as well as the result of selections guided by clan Elders. The role of the head clansmen is varied and includes being the main spokesperson for the clan they represent, looking after people's welfare, and providing direction to clan members.[2]

Population health: rural First Nations

Nation rebuilding is nothing new to Carrier First Nations and other Indigenous peoples around the world such as the Maori in New Zealand, Native American Indians in the United States and the Aboriginal peoples of Australia. While Indigenous governance systems may be different between nations, the social, economic and political landscape is very similar. The impacts of colonial processes have resulted in Indigenous people being the poorest in the world's wealthiest countries.[3] In Canada, the impacts include, but are not limited to low rates of graduation in secondary and post-secondary education systems, high unemployment rates, poor housing, poor health status and over-representation of children in state care.

Much like other Indigenous populations around the world, overall access to health services, quality and capacity of care, prevention of infectious diseases, and access to counselling services are prominent issues for First Nations people living in rural areas.[4] Various studies have shown that the First Nations population trails the general Canadian population in most health indicators, such as suicide rates (six times higher than the national average), alcohol addiction, diabetes and , renal complications (all three times higher), as well as pregnancy complications and frequency of hospital visits due to complications in health (both two times higher).[5] First Nations people in British Columbia suffer some of the worst burdens of chronic disease and fall at the bottom of just about every social determinant of health.

In addition, populations living in rural communities tend to have lower socioeconomic status and health outcomes compared to their urban counterparts. Many First Nations peoples reside in rural British Columbia with approximately 11% of the rural population identifying as Aboriginal compared to 4% in an urban context.[6] In terms of provincial healthcare provision, Carrier people reside within Northern Health Authority boundaries as defined by BC Regional Health Authorities. The territorial land base of the north region is 592, 116 square kilometres, 64% of the province, resulting in challenges to provide equitable care.

Barriers to effective health systems in Carrier communities include lack of access to consistent health care professionals, approaches to care that do not incorporate Carrier understanding of health or socio-economic barriers to care into service models, as well as financial compensation structures that do not accommodate patients with multiple problems or reflect rural practice challenges. The population of Carrier communities can range from 100 to 1800 people and as a result the communities are not always conducive to physicians living and working in the communities they serve. It is well documented that impeded access to the range of primary health care services adversely impacts health status. A number of BC First Nations communities are very remote, making accessibility to primary health care service centres difficult and costly. Health status, geography and population density, coupled with health service access, all pose unique challenges to providing primary care. Unique solutions are required to address the gap in health status.

The CSFS Primary Care Model

The foundation of Carrier Sekani Family Services (CSFS) and it's Primary Care Model is premised on nation rebuilding. CSFS was established in 1990 based on the response from tribal elders regarding the overwhelming number of children being apprehended. As a result, Carrier leaders created the agency to reassert First Nations control of justice, health, child and family services, all of which have been negatively impacted by colonisation. The underlying philosophy in each of the health programs and services delivered by Carrier Sekani Family Services is that they are grounded in Carrier and Sekani values and beliefs, are based on an integration of agency services with community services, are governed in cooperation with community leadership, and are directed toward the overall wellbeing of children, families and whole communities.

The holistic approach taken, in terms of multi-disciplines working to improve the lives of 11member Carrier nations, is congruent with the philosophies of the Carrier Peoples. While a considerable amount of work has been done, the legacy of institutions such as the Indian residential schools and child welfare practices continue to perpetuate disharmony and imbalance in Carrier communities. Social and health issues persist and government designed programs and policies have not addressed the root causes of the social ills that exist in the communities. CSFS is designed to address these concerns based on nation building by partnering with member communities to own and solve the

social problems based on Carrier beliefs, standards and metrics. The organisation is entrusted to reverse the impacts of colonisation by rebuilding healthy children, families and communities, thus allowing the elected and hereditary Chiefs the time and space to negotiate land, governance, and establish economic development plans.

One of the ways communities have asserted control over service provision is through delegation of services from the provincial and federal governments through agreements such as Health Transfer. Through contribution agreements, the Government of Canada provides First Nations the ability to provide services that are designated under the Health Transfer Program.[7] Carrier Sekani Family Services signed its first five-year transfer agreement in 1997. The CSFS health transfer currently provides a number of services including mental health, addictions, dental health, environmental health, pre-natal and early childhood development and nursing services related to public health and home and community care.[8] The Takla Landing health centre is the only CSFS facility designated as an outpost nursing station. Due to its remote location, regular full-time clinic work is managed largely through two remote certified RNs.

Prior to 2011, CSFS engaged in a program providing visiting physician services one day per month to its most remote health centres in Yekooche and Takla Landing. In 2010 CSFS developed a business case to create a sustainable, high quality and community-based Primary Care Model.

Primary Care Program structure

The CSFS Primary Care program was developed in stages beginning in 2011 with one physician providing services to three communities, supported by an electronic medical record and telehealth services. Through the demonstration of success and partnerships with Northern Health Authority and First Nations Health Authority, the program continues to grow in complexity. In order for the program to function, human capital infrastructure is built around the physician services. The physicians are currently supported by a team of medical office assistants (MOAs), who are guided by a medical administrator. The hiring of MOAs included a process of training and upscaling community staff as well as hiring MOAs who travel with physicians when they do community visits. Other positions supporting the primary care work include a program director, privacy officer and integration lead.

The program now includes a team of seven physicians each providing services roughly one week per month in person and on average two days per week via telehealth. Physicians are compensated through a group sessional contract for their in-community and telehealth work. The payment structure based on session time provided rather than patients seen, while some challenges exist, allows the flexibility of recruiting multiple physicians to sign on to the agreement as well as the opportunity to spend more time with each patient.

Current CSFS physicians recognise many patients have complex health and life issues that require more time than traditional primary care models allow. Elders face language and cultural barriers when seeking help from Western health systems. CSFS physicians value the relationship-building aspect of the CSFS primary care model because it allows them to provide cultural safety and overcome historical barriers of disjointed medical care. With additional consultation time with patients, there is opportunity to address multiple factors that contribute to a patient's health and wellbeing. CSFS physicians recognise that their engagement within communities, beyond patient visits, helps contribute to their own appreciation and understanding of their patient's culture and environment. Further, this community engagement helps CSFS physicians understand how to provide a more

holistic approach to care while increasing patient's confidence and acceptance of treatment and management plans.

As noted by CSFS physicians,

> "The alternate payment schedule allows us to spend more time with our patients, it lets us spend time with them and spend time in community getting to know them" (Physician 1, 2016)

> "It's not easy because a lot of people look at numbers, like how many patients you are seeing… salary funding is the main stay because patient encounters always take longer. There's always such a huge element of trust building, like being engaged in community, going to community functions has to be part of your job" (Physician 4, 2016).

Team-based approaches

Due to varying jurisdictions from provincial and federal healthcare responsibilities, healthcare to First Nations is often fragmented.[9] CSFS has worked to implement an integrated approach to care that builds on the funding provided through health transfer to develop an emerging model appropriate for physicians to serve First Nations patients on and off reserve. The CSFS Primary care model includes an inter-professional team of physicians, community health nurses, care aides, mental health, Community Health Representatives and drug and alcohol counsellors working together to improve health outcomes.

The vast geography and payment structure (some staff work multiple communities) makes it difficult for program professionals to liaise with each other regarding mutual clients. Consultation with employees noted a strong value of being client-focused and willingness to embrace new ways of practicing if guidance was provided to accomplish building a culture around integration. As part of a shift in delivery of community based services, CSFS underwent a process of revising job descriptions and realignment of certain services such as home care to improve follow up and share care planning. The CSFS Integration Lead identified Integrated Care Teams (ICT) as a path to transition CSFS services from a fragmented approach of providing health & social services, to a team-based approach. ICT offers many potential advantages including expanded access to care for CSFS patients/clients, more effective and efficient delivery of CSFS services that address the determinants of health, thus improving outcomes. The rising emphasis on health and wellness has also provided CSFS with the opportunity to maximise its impact on community health by targeting lifestyle diseases such as obesity, diabetes, hypertension, cardiovascular disease and chronic renal disease.

Technology—flexibility and innovation

In building its primary care model for rural and remote communities, CSFS recognised information and the use of information technology as essential elements to successful integration of primary care services. CSFS, with multiple partners, built a state of the art health grade secure broadband network that connects the community health centres with its corporate network and in turn can connect to the Northern Health Authority, Panorama and other relevant health information systems. The Carrier Sekani Family Services Wide Area Network adopted the network security and technology standards of the BC Health Authorities and the Ministry of Health Services. Through the development of a Wide Area Network, primary care services are supported with an electronic medical record, and video conferencing in each community.[10]

Prior to the implementation of an electronic medical record paper based charting and records systems, used by most health centres, was not conducive to holistic health. Client information was

fragmented, with each provider keeping isolated case notes, leading to a provider-centric record rather than a client-centred record. The greatest strengths of the CSFS' use of technology is how it enables continuity of care by allowing patients to access their physician at any time and the CSFS physicians to access the patient chart from wherever they are. As stated by a patient,

> "I think it is more beneficial to have one doctor, previously it was a hit and miss thing, I would tell than I have this condition but they never had the full body of information or history of treatments tried, so it was a lot of repetition, and with our doctors it's a lot easier and he's available by phone and you can usually reach him that way, so I don't have to wait weeks or have to tell my story over again to someone new" (Lake Babine Nation 1, 2016)

In addition, nurses, mental health and care aides all chart in a single EMR enabling continuity of relevant health information across the organisation. A patient can walk into any CSFS site, or been seen virtually by a physician, and the practitioner involved has immediate access to the same information. Building on the idea of integration, technology also enables central office communication and collaboration systems such as email, calendar and file shares by the team over the secure network. Access to electronic medical records and joint consults results in quicker, higher quality care plans. This translates directly into higher quality care, sooner.

The use of telehealth also dramatically changed the manner in which CSFS provides healthcare. Without regular service, individuals typically travelled to other providers on and off reserve between visits and accessed primary care services from community clinic nurses who rotated through the communities. In essence, there was a lack of accessible, continuous, coordinated and comprehensive care.[10]

Telehealth's foundational pillars include providing continuity of care, overcoming geographical barriers, and connecting patients to healthcare providers in different locations to improve overall health outcomes. Telehealth enables daily services in the most remote and isolated communities, reducing significant barriers to health service access while creating a more seamless and coordinated care model for patients. Telehealth enables healthcare professionals to remotely identify changing trends in the patient's physiological state, decreasing the need for off-reserve travel, emergency visits and/or hospitals stays. As noted by CSFS physicians,

> "I have done a number of follow up appointments over telehealth, people that I was worried about, then I got to see them the next week even though I wasn't in community" (Physician 1, 2016)

> "I think telehealth immensely improves overall healthcare… it gives people that sense of continuity and hopefully gets to the point where we don't have to be constantly putting out fires because we are catching things early and we're able to treat and follow management plans… so we can really move into wellness focused care as opposed to illness focused care" (Physician 4, 2016)

When physicians are not physically in community, a member of the physician team is available daily through telehealth. The daily availability of a physician is attractive to patients who prefer a walk-in style process to having advanced booking of appointments. We attempt to provide a blended model of appointments to meet the varied needs. Effective management of appointment processes reduces risk that patients will not be seen by a provider. Telehealth applications also facilitate the sharing of information among the primary care team, and recall lists, supporting individuals who would typically be isolated, critical for a team that may not be located in the same office and/or rotating through the communities.

Patient access

The major success of the program has been increased access to healthcare. With a combination of in-person and telehealth access, patients are able to access services in locations where the traditional delivery of health services is not available due to geography, limited funding for permanent in-community physicians, or lack of local specialists or clinicians to deliver services. As suggested by a Community Health Representative from a member nation "what other place can you just walk in and see a doctor right away?" (Stellat'en 3, 2016). In 2016, 4583 patients were seen by nurses in a CSFS clinic on reserve, 438 via home visit and 1855 via phone, while 3806 patients were seen by physicians in a CSFS clinic, 95 via home visit, 1678 via phone and 1390 via telehealth.

The CSFS model has the potential to create substantial health care efficiencies, resulting in both operational and financial efficiencies for both patients and the healthcare system. By eliminating the travel logistics via telehealth, physicians can see patients over a vast geography, scheduling patients from various communities. For those living in our most remote communities, the avoidance of travel means the reduction of direct travel costs and indirect costs such as daycare, time off work, imposition on family/friends. One patient explained,

> "I use [telehealth] because it can be really hard to find a babysitter and a ride to town to see a doctor... Plus then you don't have to leave community and risk having to travel in the winter on bad roads" (Yekooche 1, 2016)

In building the care team, CSFS has established partnerships for specialist services/consultation through telehealth. Specialists also travel with the physicians to community, providing them with a greater understanding of the communities as well as building on relationships. Via telehealth, the patient will visit the clinic in the community and together with the community health nurse participate in a real-time consultation involving both their family physician, who may be located in a physician office in a different location, as well as a specialist physician who may be at an acute care facility in a distant community. The patient is more comfortable having access to the family physician along with the nurse who have continuity of care relationships while being in their home clinic and having access to the Specialist. Multi-disciplinary consults give community members the ability to interact with nurses, family physicians and specialists to manage a health situation in a coordinated and synergistic way. We argue that this level of care is an enhancement of the traditional system because it involves various care providers and the patient being together at the same time rather than having to navigate a system and meet with various providers to discuss test results.

Cultural safety

CSFS has emphasised from the beginning the importance of an in-community presence to foster and enhance relationships and trust while integrating technology into the service model. Relationships have been a foundational element in the success of the program thus far. Community members and their families are able to establish relationships with their physician, and the practice supports collaborative care. Based on survey data, from the perspective of the patient, the clinic is a safe and respectful environment. In this regard, 90.8% respondents (n= 210) indicated that they were treated with dignity and respect by clinic staff and 91% indicated that they felt emotionally or physically safe or very safe at the clinic. When asked to rate how frequently doctors tried to make patients as comfortable as possible, 89.4% indicated that they always felt that their doctor tried to make them feel as comfortable as possible.[11]

The model has a payment structure that enables physicians to ask questions that they normally would not have time to ask such as about families and personal histories or life stories. This, therefore, allows physicians to connect with patients and build trusting relationships. Telehealth and electronic medical records provide and promote integrated and continuous health care delivery. The presence in community enables the physicians to spend time in community at events such as *bah'lats* or other community gatherings. From the physicians perspective they get to

> "being able to participate in people's lives… sometimes it's easy to forget who the person is… I had a particularly challenging case and one day I participated in a community event and saw the person outside in the community in the person's own elements and teaching something the person had a lot of traditional knowledge about. It made me able to develop immense respect for the person because of their traditional knowledge and to see the person at their best and not just their worst. It was helpful for me to further my relationship with this person." (physician 3, 2016).

Final remarks

CSFS has worked diligently to rectify the impacts colonisation has had on the health and wellbeing of Carrier people by developing a primary care model that best meets the needs of the member communities of the Carrier Sekani First Nations. The model increases access to multi-disciplinary care on-reserve, promoting preventative care, and holistic wellness. It reduces the impacts of chronic illnesses, off-reserve travel for care and admittance to acute care settings as well as hesitation of community members to seek care. A community-specific program structure with focus on patient access, technological innovation and cultural safety is used by CSFS in an effort to develop a sustainable and high quality primary care model.

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Presenter

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