Section 1: Improving the Quality of Care [40 points]

1.1 Briefly summarize the team or initiative.

The expansion of telehealth services to First Nations communities within British Columbia arose from the 2006 Transformative Change Accord: First Nations Health Plan, a 10-year plan focused on closing the socio-economic gaps between First Nations and non-First Nations people in BC. Action Item Number-23 of this plan, to 'create a fully integrated clinical telehealth network', provided the impetus to initiate the First Nations Telehealth Expansion Project (FNTEP). The FNTEP aimed to increase First Nations access to health services previously constrained by geography. Ambitious in approach and scope, this project engaged with 45 First Nations communities across five regional health authorities. Telehealth capacity was developed and implemented over a 2-year period, ending successfully in December of 2015. At project completion, an approximate on-reserve population of **25,000** First Nations people in BC have access through telehealth to priority health, wellness and education services.

1.2 Explain the team or initiative, as well as the problem(s) it solved, in more detail.

First Nations Telehealth Summary

The expansion of telehealth services to First Nations communities within British Columbia arose from the 2006 Transformative Change Accord: First Nations Health Plan, a 10-year plan focused on closing the socio-economic gaps between First Nations and non-First Nations people in BC. Action Item Number-23 of this plan, to 'create a fully integrated clinical telehealth network', provided the impetus to initiate the First Nations Telehealth Expansion Project (FNTEP). The FNTEP aimed to increase First Nations access to health services previously constrained by geography.

The Problem

In the province of British Columbia, there are 203 First Nations communities predominantly situated in rural and/or remote areas. Research indicates that these rural remote communities will face consistently poorer health outcomes when compared to their larger urban counterparts[1]. Although the definition of rural/remote varies, each of BC's First Nations communities has been identified as underserved and characterized by difficulties accessing reliable primary and specialty health care services due to geographic constraints. With disparities in access to services and supports necessary in addressing individual and community health and wellness outcomes, these communities often face higher rates of poverty, lower levels of education and higher burdens of complex chronic disease[1, 2].

Telehealth expansion and implementation amongst First Nations communities, was seen as the first step in bringing BC closer to narrowing the gap in disparities for First Nations citizens allowing for access to high quality, culturally relevant and integrated health services closer to home. However, the current approach to Telehealth delivery in BC focuses on the traditional method of programs and service providers connecting patients to specialist care in larger, urban centers. This model created significant barriers in care access for many First Nations communities who are challenged in obtaining fundamental basic primary care delivery, the initial entry point into the much larger health system.

FNTEP Clinical and Community Engagement Process

Clinical Engagement. FNTEP used a 'map and match' approach to assist in connecting communities with existing service providers and enable the communities to reach out and develop partnerships with new service providers to meet their identified gaps. The ability of the FNTEP to engage in this manner created numerous strategic partnerships with provincial initiatives, programs and providers.

Providers currently visiting and delivering services within a community were first engaged to assess their capacity and ability to deliver Telehealth based services. Partnerships with the

Regional Health Authorities were later leveraged to gauge the ability of current Telehealth providers and programs in extending their service delivery. Respecting the established referral patterns of each Regional Health Authority, their programs and providers was critical to the process. While it is technically possible for patients to see providers outside of their usual referral pattern, this approach was not encouraged as it is difficult to sustain in the long-term. Only when the capacity of an individual provider, program or Regional Authority was exhausted or unable to continue engagement, were providers outside of the established referral pattern assessed for capacity.

Evidence based best practice suggests that Telehealth and program-provider sustainment is only accomplished with integration of process into routine clinical care. To further support this and ensure success, the FNTEP collaborated with community, regional health authority programs and providers to ensure their process of health delivery was incorporated into current and future state workflows.

Community Engagement. At the outset of the project the FNTEP created a community engagement process to ensure that each of the 203 First Nations communities across the province were provided an opportunity to participate in the project. Letters of Invitation were sent to all First Nations communities in BC, and of those who responded, the FNTEP team followed-up to complete readiness and needs assessments. In addition to this process, the FNTEP team developed an end to end Telehealth enablement process used to work with communities and providers to complete the deployment of the 45 'self-selected' communities. Meaningful and continued engagement has been the foundation to building success throughout the lifespan of the project and beyond. The FNTEP team understands and continues to demonstrate the importance of communication in building lasting relationships and has spent extensive time engaging with not only communities but also with providers, internal and external stakeholders and Regional/Provincial partners.

A key component of the engagement approach involved educating communities and providers with respect to Telehealth within an environment where it is safe to challenge conventional thinking, experiment with new models and make mistakes. FNTEP facilitated awareness and education of Telehealth technologies while encouraging all stakeholders to think beyond the traditional applications of the technology to reach optimal health access and outcomes of the citizens of the First Nations communities. The success of the engagement, education and pushing the boundaries is evident in the representation of every facet of healthcare, including traditional healing as a provider. Moving forward in anticipation of Wave 2 of the initiative, the focus of engagement, education and 'mapping and matching' remains unchanged, combined with methodology of accommodating the unique opportunities and challenges within the First Nation communities.

1.3 How did the team or initiative improve care in one or more of the following dimensions of quality: acceptability, appropriateness, accessibility, safety, effectiveness, equity and/or efficiency?

***Acceptability*.** The FNTEP brings BC one step closer to closing the gap in disparities for First Nations citizens and health professionals to access high quality, culturally relevant and integrated health and wellness services closer to home. The care that is provided patients in community is respectful of culture and of both the patient and their family needs, preferences and values. Family members can now be present with their loved ones and involved in care delivery and decision making since care is delivered in community. Equally important, the FNTEP provides a forum that encourages a sense of ownership and leadership within and amongst the communities that encompasses more than the direct health services or technology.

The FNTEP has been 'Transformative' in its delivery of healthcare through telehealth technology. Starting with a philosophy of inclusion, flexibility, mutual learning, continuous improvement, reciprocal value propositions and taking the time to do things right; FNTEP has improved access to health care services in rural and remote communities as evidenced by the adoption statistics. Many communities have shared that Telehealth reduces the barriers to accessing care and the costs associated with patient transportation, an issue widely identified as a major problem by First Nations in all regions.

***Appropriateness*.** Telehealth is unique in its ability to be developed around the needs of both provider and community. FNTEP's reach has extended beyond merely the traditional telehealth activities of our regional health authority partners. The FNTEP has helped to drive patient-centric care by fostering strong working relationships between communities and external partners. Community capacity and on the ground professional development has been increased, as has the enhanced decision making and co-management of patients in these communities, reducing the isolation felt by providers and patients in rural and remote communities.

Additionally, as part of the engagement process, FNTEP assists communities to systematically examine their health care delivery models and perceived gaps in access to care. FNTEP workflow analysis facilitate both current and ideal future state discussions and the associated opportunities for health care delivery improvement. The scope of these discussions include but are not limited to, the referral process, scheduling, registration, pre-appointment activities, active and post telehealth events, and integration of all health activities within the community.

"Telehealth Expansion has enhanced community capacity and the driving of holistic patient-centric care while fostering strong working relationships with the broader provincial service model." –Canada Health Infoway

***Access*.** With the physical, financial and psychological barriers to healthcare delivery removed, communities have experienced an ease in access. Through the development of enhanced partnership in the delivery of care, community members now have real choice in what care they access, how they have it delivered and with whom they build those meaningful wellness relationships. With this increased community engagement capacity has been built through the sharing of knowledge and empowerment over individual health outcomes and choice.

Increasing access to specialized clinical expertise, including management of complex chronic disease and timely urgent care while reducing wait times for appointments and follow-up visits for all providers. It has been argued that in some cases specialty care is received faster now in community than in some urban settings.

"The Telehealth Expansion Project reached beyond geographical constraints faced by communities and increased access to wellness." –Northern First Nations Primary Care Dr.

Equity. First Nations citizens and communities are benefitting from the overall process utilized by FNTEP. In particular, as a part of the project, the FNTEP has standardized the technology, processes and protocols for all communities, in addition to those providers working within community. Standardized processes promote quality care, benefit First Nations citizens and is essential given the number of partners and workflows involved.

"No longer are we forgotten, we share now the same opportunities as our counterparts in the larger cities." –Takla Landing Elder

"A lowly family doc reached out to his specialist colleagues and we all collaborated on care that was actually more timely than most face to face situations." –Interior First Nations Primary Care Dr.

Efficiency. The FNTEP acts as a tangible forum for collection and exchange of telehealth as well as serving as a medium where ideas and views on many levels are being exchanged. Within all clinical and program delivery settings, FNTEP Telehealth based interventions have been shown to complement a robust 'on the ground' interdisciplinary team by[3]:

- Strengthening relationships between patients and providers by increasing the capacity, flexibility and efficiency of care providers.
- Increasing access to specialized clinical expertise, including management of complex chronic disease and timely urgent care while reducing wait times for appointments and follow-up visits for all providers.
- Increasing care continuity/ care coordination for patients and integration of providers by facilitating communication and interaction among provider teams from virtually anywhere.
- Increasing ability to connect various care providers with each other to facilitate knowledge transfer, promote collaboration, support health prevention measures and patient education efforts through peer-to-peer discussions.

- Providing support for professional development, enhanced decision making and co-management of patients thereby reducing the isolation felt by providers in rural and remote communities.
- Improving patient pathway 'from home to hospital' by enhancing ability of acute care settings to more effectively and efficiently communicate, collaborate, coordinate discharge and ensure appropriate follow-up with community primary care providers.

Section 1:	**/40**

Section 2: Evidence [25 points]

Provide clear evidence that the nominee has improved the quality of care. Evidence of results can be quantitative or qualitative.

Adoption of Telehealth in First Nations communities was considered critical and therefore integrated throughout the project to capture the success of the FNTEP providing access and delivery of primary care, Care Coordination and continuing education. Telehealth events were classified into the following categories:

1. **Clinical/Wellness** - typically one-on-one event with a physician, specialist or health care professional, but also includes group wellness events with patients. E.g. AA meetings, nutritionist seminars, maternal health, First Nations traditional healing.

2. **Care Coordination** - event involving care coordination or health administration between provider's/healthcare workers and administrative staff or others, on behalf of patients. E.g. provider to provider and/or specialist to provider discussions, physician referrals and case management.

3. **Educational** - event for the delivery of health promotion/ education to community members and/or health professionals. E.g. residential care program, UBC Learning Circle event, or courses including professional development.

Adoption targets were established for each category to measure uptake. The Adoption Targets for all categories were met and exceeded. Some First Nations communities in the project were identified as net new, meaning no Telehealth infrastructure or services were in place and some communities had existing Telehealth established and the project enhanced, upgraded and further mapped and matched services to expand their program creating greater access to services. Over the two-year project FNTEP achieved:

Clinical Wellness - 1,596 events (114% compared to target)

Care Coordination – 164 events (164% compared to target)

Educational – 165 events (162% compared to target)

A further breakdown of the clinical/wellness category shows that 95% of the Telehealth events were conducted for Primary Care access. 5% of these events were completed for access to Specialty care.

The FNTEP has set foundations from which the First Nations communities can build upon in many ways. Research in Telehealth and the First Nations Communities is one such opportunity. At an essential basic level, FNTEP has provided the mechanism to track Telehealth events, by community and type of activity. Moving forward, the First Nations

communities will continue to track adoption numbers as a vehicle for continuous improvement to the Telehealth processes as well as overall health delivery.

As part of that improvement, the First Nations communities are developing an in-house Adoption Target database that will enable the communities to gather, analyze, and report on adoption numbers from various data sources on a regular schedule and provide a comprehensive community picture. The goal is for First Nations communities to be able to provide a consistent means of reporting in a meaningful way on Telehealth activity for various audiences. Based on the gathering/monitoring process and the reporting views developed this will also allow FNHA to address any issues or concerns that are revealed.

Section 2:	**/25**

Section 3: Spread and Sustainability [15 points]

3.1 How will this team or initiative's work be sustained, if applicable?

FNTEP has successfully delivered Telehealth technology, training, clinical mapping and matching and provincial services to 45 First Nations communities and is now considered a basic component of the First Nations model of health care delivery moving forward.

The significant success of FNTEP Wave 1 to date has drawn significant community interest and requests to participate in the next stage of expansion. To date, over 45 additional communities have expressed interest in participating and going through the formalized process to implement and adopt Telehealth.

Moreover, FNHA has completed a five year IMIT and eHealth Strategic Plan that has been developed with significant engagement and support by FNHA Regional Directors, Policy, Planning and Community Services, Chief Medical Office and other business units. The Strategic Plan includes full integration with Regional clinical information systems to provide a seamless electronic health record for First Nations citizens regardless of location and physical point of service. The business case for Wave two is directly aligned with the eHealth strategy to support regional and provincial Telehealth priorities and initiatives.

FNHA's long term vision with respect to Telehealth for BC First Nations involves the transition to an operational Telehealth Program that will continue to serve and support First Nations communities implemented via this project.

The Program will provide additional BC First Nations communities with Telehealth capabilities, expand on the health and wellness services delivered via Telehealth for communities, and continue to partner with regional and provincial Telehealth programs with integration across the province as the goal. In this regards, FNTEP will continue the engagement of Regional Directors and their teams regarding the Telehealth journey while continuing to align the priorities for the First Nation communities.

At the completion of the project in December 2015, over 180 service providers and provincially funded programs have been engaged, confirmed and enabled to provide telehealth care services to the 45 'Wave 1' First Nations communities. This includes:

- 124 individual care providers
- 25 provincially funded programs
- 36 primary care physicians
- 4 primary care Nurse Practitioners

All of the 'Clinical' sites have been matched with one or more Primary Care providers and the uptake of primary care services via Telehealth has proven to have the highest success of all types of services.

To date there are 273 active providers delivering health care and educational services to 65 communities. Another 6 communities are staged to 'go-live' by the end of summer 2017 with an additional 75 care providers confirmed to offer Telehealth to First Nations communities.

FNTEP success and sustainment is due in large part to the partnerships created across the province stemming from the initial project. An Advisory Committee was established involving Regional and Provincial Health Authorities, the Ministry of Health, Canada Health Infoway, internal First Nation Health Authority departments, Health Directors, community health staff, and Elders to guide and advise the project.

3.2 How will the findings or successes of this team or initiative be shared or spread to other units, wards or locations, or across other disciplines, if applicable?

The First Nations Health Authority (FNHA) is the first province-wide health authority of its kind in Canada. In 2013, the FNHA assumed the programs, services, and responsibilities formerly handled by Health Canada's First Nations Inuit Health Branch – Pacific Region. Our vision is to transform the health and well-being of BC's First Nations and Aboriginal people by dramatically changing healthcare for the better.

The FNHA Telehealth Program works with First Nations Health Service Organizations across the province to improve community access to health and wellness services. The program works through a comprehensive engagement process with each interested community to identify their unique health and wellness priorities for telehealth and assess the potential gaps in health centre operations which need to be addressed before telehealth services are introduced. While communities are being enabled for telehealth, service providers who currently work (or would like to work) with the communities are engaged to design their service model and determine which telehealth tool (software, room-based or desktop hardware) is best suited for their practice. The majority of events occur between First Nations communities (many rural and remote) and clinicians located in urban and semi-urban areas (e.g. Vancouver, Prince George, Prince Rupert and Williams Lake).

Unlike previous attempts at Telehealth implementation and expansion, technology could not simply be dropped off, plugged in with little training provided. First Nations communities required, rather deserved to be engaged in a meaningful way and connected to services and providers on the other end: services they had identified as important, had a relationship with, trusted and wanted to continue working with. For the services and providers working within First Nations communities, consideration had to be given to their working space as they defined it. Technology needed to be easy to use, flexible and portable. The FNTEP provided just that, and opened Telehealth up to Primary Care and allied health professionals across the province in a way that has yet to be replicated in BC.

To date members of the FNTEP team have provided presentations at numerous national and provincial informatics and eHealth conferences including COACH, Canada Health Infoway's Clinical Engagement Forum and most recently the Canadian Nursing Informatics Association's annual conference in Toronto. Additionally, members of the team sit on several provincial, regional and ministry level steering committees involving the advancement of Telehealth in both Primary and First Nations care delivery. The FNTEP was honoured in 2016 with the Dr. Mo Watanabe Award for Telehealth Innovation and the National Award for Excellence in Telehealth delivery by COACH.

Section 3: /15

Section 4: Innovation [10 points]

How is this work innovative? How does it contribute new thinking towards this area of care or improvement?

The FNTEP has broken down the historical barriers that have contributed to preventing First Nations access to provincial health systems and service that enhance health care services, provider effectiveness, and continuity of care for First Nations citizens. The FNTEP consciously avoided many pitfalls and focused on understanding what the First Nations communities want and need in order to improve their clinical service delivery. From there, the FNTEP systematically chipped away at the each identified barrier to success by putting model in place that was achievable and sustainable. Communities that are using Telehealth love it and more and more communities want access to it! That is the best sign of success.

This project has been attempted several times over the past 7 years, and it was not until the FNTEP came onboard was there truly an opportunity for success. The FNTEP has set a new paradigm with their successful innovative approach and delivered on a truly transformative eHealth informatics project that benefits both First Nations citizens and all involved providers.

"The FNTEP has broken through a mountain of Health Care System inertia in British Columbia to push the needle of transformation and innovation in Primary Care." –Northern First Nations GP

Section 4:	**/10**
Quality of Submission:	**/10**
TOTAL SCORE:	**/100**

Appendix A

References

1. Smith, K., Humphreys, J. & Wilson, M. (2008). Addressing the health disadvantage of rural populations: How does epidemiological evidence inform rural health policies and research? *Australian Journal of Rural Health*, 16, 56-66.
2. Smith, A.C., Bensink, M., Armfield, N., Stillman, J. & Caffery, L. (2005). Telemedicine and rural health care applications. *Journal of Postgraduate Medicine*, 51(4), 286-293.
3. Ricci, A., Caputo, M.P., Callas, P.W., Gagne, M. (2005). The use of telemedicine for delivering continuing medical education in rural communities. *Telemedicine Journal EHealth*, 11(2), 124-9.