Canada Health Infostructure Partnerships Program

Project: Nunavut Telehealth Project

Project Description

Ikajuruti Inungnik Ungasiktumi (IIU) Network

The Government of Nunavut, recognizing that telehealth could play a potential role in delivering a wide range of health care, social programs and services to Canadians living in remote and isolated communities implemented a series of pilot projects. These projects included telepsychiatry, teleradiology, dermatology, mental health counseling, education, and a visitation program.

It is important to understand the environment surrounding the implementation of such projects in Nunavut. Some of the challenges present during this project included:

- Territory is vast, 1/5th the size of Canada with 27,000 inhabitants spread over 26 communities
- Communities are only accessible by air or sea
- Substantial difficulties in recruitment and retention of clinical and technical professionals
- Unique infrastructure in the North, on a community to community basis and from north to south; communication based on a hybrid network of frame relay and satellite technology.
- Reliance on referral services from providers in jurisdictions in other provinces and territories.

The IIU Network improved the access to health care by the people of Nunavut beyond the "basics" to include health, social services, public health, education and administration. The project also significantly impacted on the existing infrastructure and provided greater access to information for professionals working in Northern remote communities. The continuing education and contact with other health care providers provided much needed support to health care workers -- potentially improving health care resource shortages by encouraging the recruitment and retention of medical professionals.

Today Nunavut is one of the leaders in implementing a videoconferencing network in a remote, rural, isolated and aboriginal environment. We offer services in 4 languages, Inuktituk, Innuinaqtun, French and English.

Outcomes

- A total of 15 sites were installed within Nunavut, including 5 upgrades and 10 new installations;
- The project team developed a strategic plan for future directions;
- While Nunavut is developing a wide range of services from our southern providers, during the course of the project the communities demonstrated that some of their needs would be better met with northern based programs. As our philosophy includes delivering services closer to home; in a culturally appropriate environment; wherever possible Nunavut looked to its own providers (allied health) to grow their programs in their communities or region and deliver them with Nunavut flair. For example, STD CE sessions delivered by a Nunavut source, addressing a unique territorial need.
- The territory invested in an enhanced telecommunications network as well as our own MCU bridge. This enabled the Territory to access the south for medical, social and

continuing educational needs. This investment also allows communication between multiple Nunavut communities as well.
- The project developed internal policies and procedures around clinical use, maintenance, educational and scheduling.
- The project was able to recruit site technicians from existing staff at the health centres (ie. local residents). This is extremely important as it builds capacity in our remote communities, as well as assists in the retention of our local employees.

Research and Policy Implications

The IIU Telehealth Project is unique in that it involves clinical referral patterns that extend to a number of Canadian jurisdictions. These include the Provinces of Alberta, Manitoba, Ontario, as well as the NWT & Nunavut itself. Out of necessity, this project has integrated many of the necessary areas which would be included within a "Pan-Canadian approach," as suggested by several leading organizations including: Canada Health Infoway, Health Canada, and National Initiative for Telehealth Guidelines (NIFTE) and the Canadian Society of Telehealth. The lessons learned by the IIU Telehealth Project should be examined closely by such organizations.

There are several reasons for telehealth policy to be developed. Obviously, any organization requires some degree of standardization to deliver a measured service to its clients, but even more importantly is the area of liability that is assumed by any organization conducting a telehealth session. Telehealth organizations require policies that stand the test of reasonableness. Such policies must be integrated immediately into the organizations operational structure.

More work needs to be undertaken towards the creation of a cross-jurisdictional network. Several stakeholders from across Canada share in this requirement. If a Pan-Canadian vision is to be undertaken stakeholders need to come together in one forum to share lessons learned and move forward. The IIU Telehealth Project could be one such contributor.

The primary contractor of the IIU Telehealth Project has developed over 200 pages of policy recommendations. A review of this information may be beneficial to others, when considering policies addressing the clinical, educational, technical and operational aspects of telehealth delivery.

Lessons Learned

Though the telehealth equipment is working well most of the time, it requires too much telecommunications capacity, making it prohibitively expensive to operate in terms of transmission costs.

Most communities have very little telecommunications capacity. A store and forward telehealth solution has often been mentioned as a substitute for the present live videoconferencing set up.

Medical diagnostic imaging needs are not being met using the present telehealth equipment because of the need to send images in real time and the lack of the correct equipment to do it with. This problem is not easily solved with the present technology configuration but needs to be considered seriously in any future expansion.

A limitation on the number of sites that can be connected at any one time is preventing some communities from obtaining the continuing education session that they want and need.

Clinicians inside or outside Nunavut do not appear to be aware or convinced of the usefulness of telehealth and are either ignoring it or continuing to provide services in exactly the same way as they did traditionally, without telehealth. One solution may be for the telehealth management team to develop an awareness program involving physician-users of telehealth in other regions.

The present network is not organized to be well integrated into the health care system. It is an add-on. For example, for clinical applications it needs to be organized around the clinicians' schedule and not the other way around.

Clinical policies and protocols had not been implemented at the time of the evaluation. These need to be in place before telehealth can be successfully and safely used for patient care applications.

In certain buildings, the equipment is located in a space which is not conducive to private use for patients or to its use in a wider organizational context: training, meetings, information sessions.

In those communities where telehealth has been implemented, the measures in place to make community members aware of its presence have not been entirely successful. Other than the use of the community radio, presentations at community meetings, posters and flyers might help to increase awareness.

At present the technology is available only to the health care system. The Nunavut communities are so small that it will be hard to justify its use for health care alone. Multiple users could take advantage of the technology if it were made available to others in the community.

The Future

The IIU Network project has made the transition from project to program. The Department of Health and Social Services and the GN as a whole are committed to the continued growth of the telehealth program.

The Department of Health and Social Services has received additional funding from the Primary Health Care Transitional Fund, Aboriginal Envelope. As a result, the IIU Network will be expanding to an additional 7 communities. This funding will enable the team to continue the next phase of the program which includes adding additional communities to our telehealth network, expanding our existing telehealth program in the new communities and adding new programs to all sites.

The Department of Health and Social Services in partnership with Public Works and Services will be re-instituting the GN Videoconferencing Steering Committee including departments of Justice, Education, Sustainable Development, Arctic College, Human Resources and the R.C.M.P. Each of these departments recognizes the need for integrating this service into their service delivery.

APPENDIX A: Documents or Products Generated

RFP Templates for: Project Management, Equipment, Evaluation
Proof of Concept Testing Criteria
Templates for vendor contract(s)
User Guides and/or Training Manuals
Policy and Procedure Manuals

Job Descriptions and/or recruitment material
Software Applications, including: EHR application, Security/access alert software, Telehealth scheduling software
Standards, including: Data (includes minimal data sets), Image, Messaging
Clinical Training Protocols
Clinical Program Protocols
Video Conference Protocols and Etiquette Guide
Quality Assurance Procedures
Confidentiality and Privacy documents
Consent Forms
Sustainability Plan
Strategic Plan
Project Plan
Project Document
Needs Assessment
Risk Management Matrix
Communications Plan

For additional information, please contact: Tina McKinnon, at tmckinnon@gov.nu.ca or at 867-975-6950