Keewaytinook Okimakanak Telehealth Evaluation Manual

This **Manual** is attached as **Appendix 2** to the Final Evaluation Report
31 March 2006

This manual integrates the tools that were designed to gather data to evaluate the project "KO Telehealth / NORTH Network Partnership Expansion Plan: Improving Access to Integrated Health Services" between April 2004 and March 2006. The tools were developed in consultation among members of the Evaluation Team, the KO Telehealth staff (KOTH), and the Keewaytinook Okimakanak Research Institute (KORI).

As with any research process, the tools require adaptation to different contexts; this means that this manual should not be seen as a recipe book, but rather as a resource guide that can be enriched and improved.

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1. Introduction

1.1 Purpose and Objectives of this Manual

The **purpose** of this Manual is to turn evaluation into a **learning process** that can help improve health services in First Nations. This manual is based on the notion that evaluation is about *tracking change*, and improving the performance of what we do on the basis of our experiences.

Some writers differentiate *evaluation* from *performance measurement.*

> *Performance measurement is extensively and increasingly used to measure the performance of government programs…In contrast with evaluation, which usually undertakes special one-time measure and extensive analysis of the data gathered, performance measurement is characterized by regular and often more straightforward measurement of aspects of a program's performance. (Mayne, 2001: 4).*[1]

In addition, it is worth adding that:

> *Performance measurement is often aimed at the very fist level of impacts of a program, namely measuring the specific outputs (goods and services) provided by the program personnel. (Mayne, 2001: 4)*

This manual is intended as a bridge between a one-time evaluation of the Keewaytinook Okimakanak Telehealth Pilot Project and the ongoing regular assessment of performance of an operational and sustainable program.

- The **first objective** of the manual is to describe all the data collection tools used in the evaluation. The reader is invited to adapt and use them for an ongoing performance measurement of the program beyond April 2006, or for other projects in telehealth.

- The **second objective** is to improve the ongoing monitoring of the telehealth program once it reaches operational status in 2006 and beyond.

- The **third objective** is to share the evaluation methods and tools with other First Nations and health programmes. In this context, the Manual will also be of interest to the Keewaytinook Okimakanak Research Institute (KORI) as a capacity development tool.

1.2 Intended users

The manual is intended to be used primarily by Keewaytinook Okimakanak Telehealth (KOTH) administrators, managers, educators, trainers and frontline staff (e.g. Telehealth Schedulers, Community Telehealth Coordinators, CTCs) located in administrative centres and in participating First Nations communities.

It is anticipated that KOTH and KORI personnel will work collaboratively with the Evaluation Team to share the manual, tools and the reason for the evaluation with other members of First

[1] Mayne, J. 2001. Addressing attribution through contribution analysis: Using performance measures sensibly. *The Canadian Journal of Program Evaluation* 16 (1): 1-24.

Nations Communities such as Community Health Directors, other community health workers, the chief and band council.

1.3 How to use this manual

While this Manual was prepared as part of an evaluation project, we are hopeful that it may be used to create capacities that are appropriate in First Nation settings. This would require the engagement of elders and other community leaders who may endorse the process of exploration and adaptation of the tools. This may require a process of *learning-by-doing*.

The Methods section of the manual is organized into **five sub-sections, based on where the data are collected** (see the Table of Contents). Many of the methods and tools are presented along with an introduction about the tool itself. In several cases, Consent Forms are provided, which are to be used to ensure the people that are asked for information are aware of the purpose of the evaluation, are informed that their answers will remain confidential and realize the process is voluntary. In several cases there is also reference to how the data can be summarized and analyzed.

Caution: This manual is not intended to replace textbooks[2,3] or formal courses on designing and conducting evaluations or performance assessments. Rather the manual outlines, in general terms, the reason behind the evaluation tools, provides hints for their proper use and suggests ways in which to analyze and interpret the data that were collected. The manual is not meant to replace an external evaluation, but rather to make the process accessible to project implementers and partners in the community.

1.4 Scope of evaluation (breadth and depth)

The "KO Telehealth/NORTH Network Partnership Expansion Plan: Improving Access to Integrated Health Services" (hereafter referred to as the "KOTH Project") includes 24 communities in the Sioux Lookout District over a two-year time period, which ends on 31 March 2006. The KOTH Project builds on the telehealth experience and network among the five communities that constitute Keewaytinook Okimakanak Northern Chiefs and that benefited from the Kuh-Ke-Nah Smart Demonstration Project[4] to 19 additional communities.

The quantitative data sources include checklists and questionnaires developed and applied during the KOTH Project. Sources also included KOTH administrative data and time-series data provided by Health Canada (HC). Each First Nation was approached for permission to release the HC data. Most data were collected or extracted from administrative databases in July-September, 2005.

The qualitative data was collected from a sample of communities with a range of exposures to the telehealth technology and services, some having just received it while others had been using it for up to two years. The bulk of the qualitative data collection at the community level took place in the third quarter of 2004. The video based interviews were conducted with a wide

[2] For example of program evaluation see Grembowski, D. 2001. The Practice of Health Program Evaluation. Sage Publications, Thousand Oaks, CA.
[3] For an outline of a telemedicine evaluation see Fields, M.J. Editor. 1996. Telemedicine: A Guide to Assessing Telecommunications in Health Care. National Academy Press, Washington, D.C.
[4] The final report is available at: http://knet.ca/documents/KNET-Smart-Final-Report-Aug05.pdf

range of health practitioners, patients, and the local leadership. Some participatory research tools were used to help Community Telehealth Coordinators explore their current tasks and brainstorm on training needs. Focus groups were used to document the views by general practitioners and family physicians. Semi-structured phone interviews were used to learn how specialists perceive the benefits and challenges of telehealth. The data collection from GPs/FPS and specialists was collected between July and August of 2005.

1.5 Evaluation approach and rationale

Evaluation and performance measurement are areas of program planning and research that are open to a range of approaches. Conventional planning in the past took on a mechanistic approach, where programs were understood as machines –where an input in one place would directly link to an output at the other. In this way of thinking, evaluation was seen as a way to measure and demonstrate that the input led to the output. For example, if you added more nurses (input), you would expect to have shorter waiting lists at a clinic (output). Today, this mechanistic approach is being re-evaluated, especially because health systems are very complex and many factors may contribute to a given output. For example, if the new nurses were not sensitive to the needs of the patients, or were rude, or lacked the appropriate equipment, the patients may be less willing to come to the clinic. This is how services evolve in real life, and there is a need to take into account all the factors that contribute to the output.

The focus today on measurement is less about precision and more about increasing our understanding and knowledge of what works in a program. This means that we need to use a wide range of tools to measure change. A representative of the Office of the Auditor General of Canada calls for the use of other tools beyond the conventional quantitative ones: "We need to include softer and qualitative measurement tools within our concept of measurement in the public sector." (Mayne, 2001: 6)

The mechanistic approach is now being replaced by the systems approach (Chapman, 2003)[5]. In this way of thinking, much attention is given to the multiple components or parts of the health system. This approach suggests that often "things happen" that were not predicted, and that evaluation needs to capture those 'unintended consequences'.

In the systems approach, much attention is placed on hearing the perspectives of the different people involved in a program. This is important because it is expected that each person understands the program differently, and these differences matter (Morgan, 2005)[6]. For this reason, a major challenge is to integrate the views of many people involved with a program.
System thinkers place a lot of importance on using evaluation to help project managers *adapt* and *learn*. This manual is a direct response to this need: it provides the tools used in the evaluation with the expectation that they may be used and adapted for a continued performance monitoring or continuous quality improvement or similar process. They are also shared with the goal of helping the different people involved in telehealth gain new skills and capacities.

This evaluation manual contains tools to collect quantitative and qualitative data. These tools are combined in different ways to document change along five major themes in the Evaluation

[5] Chapman, J. 2004. *System failure: Why governments must learn to think differently.* London: Demos.
[6] Morgan, P. 2005. The idea and practice of systems thinking and their relevant for capacity development. Maastricht, the Netherlands: ECDPM. http://www.capacity.org/Web_Capacity/Web/UK_Content/Navigation.nsf/index2?readform&http://www.capacity.org/Web_Capacity/Web/UK_Content/Content.nsf/0/01E3B8835E3F0356C1256FDC002A7ED6?OpenDocument

Framework: Access, Acceptability, Integration, Quality and Financial. In some cases, for example in the financial one, a great deal of quantitative information is used to approximate the value of the services. In other cases, for instance quality, a great deal of qualitative information in the form of stories and opinions are used.

1.6 Acknowledgements

This manual, and the many of the tools it includes, were developed by the Evaluation Team with the staff of KOTH. Some of the data collection forms were first developed by KOTH and modified in consultation with the Evaluation Team. The following people contributed directly in the design and revision of data collection tools:

- Kevin Houghton, Program Manager
- Cheryl Klassen, Education Program Coordinator
- Julie Meekis, CTC, North Spirit Lake
- Gibbet Stevens, Telehealth Scheduler
- Donna Williams, Regional Telehealth Coordinator
- Tina Kakepetum-Schultz, Community Engagement Coordinator
- Brain Walmark, Policy Analyst and Research Director, KORI

2 Methods

2.1 Topics and data collected at the community level

This section introduces the reasons for measurement, the Patient Consent Form, and a range of tools used to collect data from patients, Health Directors, nurses, and Community Telehealth Coordinators.

Several of the data collection tools require written or verbal informed consent and appropriate forms are included.

Most sub-sections include the following items:
1. Data Collection Protocol, with explanation of Checklist or Survey Tool or Interview Guide;
2. The appropriate Tool (Checklist or Survey or other instrument); and
3. Methods for Summarizing and Interpreting the Data

2.1.1 Patient Satisfaction and Feedback

The Patient Satisfaction Form was developed at the insistence of KOTH staff and CTCs who found that the NORTH Network Patient Satisfaction Forms were not appropriate in the context of First Nations. The form was developed with the active involvement of the KOTH staff and was renamed the Patient Feedback Form.

2.1.1.1 Background

Why measure satisfaction?

Measuring satisfaction is a tool that the Keewaytinook Okimakanak Telehealth Service can use to see if people in First Nation communities feel comfortable using the service and are happy with what the service is able to provide.

- Assessing satisfaction usually involves asking people want they like about the service and what they don't like.
- If people feel uncomfortable or dissatisfied, then this knowledge can be used to help improve the service.

How do you measure satisfaction?

There is no simple answer to this question.

- It depends on the person that you want to ask (patient, physician, manager, or other).
- It also depends on what you want to know (more about this later)

There are no standard methods, but there are examples from telehealth networks in Canada, the USA and elsewhere in the world.

Who should you ask?

You could ask anyone who has used the service. This includes:

- Patients or clients
- Family and friends of the patient/client
- Health care providers (physicians, nurses, health care workers)
- Community Telehealth Coordinators
- Health care educators and learners
- Managers or administrators
- Other people who use the service

You might also ask people who do not use the service themselves, but help to support it.

- Chief and Band Council members
- Community Health Directors and Community Health Workers
- Telecommunications or Information Technology support staff
- Scheduling and other administrative staff

It is difficult to ask every user, so one usually picks those groups of people who use the service the most often, or those who are the most affected by the service.

Sometimes is it not right or fair to ask a person questions about the telehealth session—they may have just received very bad news or they may feel uncomfortable talking to the evaluator. In all cases the evaluator will respect the rights of the person who does not want to participate or who chooses not to answer certain kinds of questions. The user's participation is purely voluntary. The user's decision to participate or to decline to participate, or their answers if they do participate, must not affect their eligibility for telehealth, and other health care services in the community.

Why are there so many questions?
Why can't the evaluators just ask if the user is satisfied?
Other questions are often asked at the same time to help understand the person's answers. For example, someone's answer to "were you satisfied with the telehealth session" might depend on what they expected to happen, what actually happened during the session, and what they thought might have happened if they had done something other than telehealth, such as travelling to see the physician.

A person's answer might also depend on how well they understood the question and how well they were able to put their feelings and thoughts into words. If people were using a translator, then their answer might also depend on how well the question could be translated into Ojibway or Oji-Cree or Cree and then how well their words and their feelings and thoughts behind the words could be translated into English.

Other questions may try to explore the person's answer in more detail. The details can help identify the things that need to be improved by the program or by other community services.

The way in which a question is asked, how it is asked and when it is asked can be very important. Sometimes the users don't want to offend the evaluator (or the provider) so they (the users) say what they hope the evaluator wants to hear. Sometimes the questions are asked too soon after the session—before the person has had time to think about what happened. At other times the questions are asked too late after the session and the person has forgotten the details of what happened and how they felt.

What it boils down to is that the most common way to measure satisfaction is to ask the user (the patient, the provider, the learner or the educator) a number of questions about themselves, about their telehealth experience and about other things that may affect how the user experiences and benefits from the telehealth session.

So, how do we measure satisfaction with Keewaytinook Okimakanak Telehealth Services?

Some Options to Consider: Who, When, Where, How and What do we ask?

Who:

- Patients/clients
- Family and friends of the patient/client
- Community Telehealth Coordinators
- Health care educators and learners
- Health care providers (physicians, nurses, health care workers)

When and Where:

- We may ask some questions right after the session ends (right in the telehealth room, over the videoconference equipment or over the phone).
- We may ask other questions one or two days later, either by going to the user's house, calling over the phone or by videoconference.

How

- We could encourage the CTCs to ask the questions and write down the answers.
- We could ask users to fill out paper forms in the telehealth room or to take them home and put their confidential answers in postage-paid envelopes to be mailed to the KOTH administrative office in Balmertown.
- We could put some of these questions on the computer or on the web site for on-line entry by the CTC or by the user.

What

The exact question depends on the user and on the service that was used. Specific questions can be placed into the following general groups:

- The amount, kind and usefulness of preparation before the session started
- The user's physical comfort with the way the room is set up, the way in which the equipment was used, the clarity of the picture and the sound.
- The user's feelings about the communication. How good was it?
    - From user to the person on the other end.
    - Back from the person at the other end to the user.
    - Between the user and the CTC (or health care worker) who is in the same room as the user.
- Information about the user, such as age, gender, previous experience with telehealth or with alternatives.
- The type of health condition or concern and the type of session (educational, screening, preliminary diagnosis, follow-up, monitoring, other types).

Comparison Group

Another issue is the type of comparison that we want to make.

- Do we want to compare answers over time to see how things have changed?
    - If so, then we need to keep the questions and the Who, When, Where and How as similar as possible over time. (As similar as possible, but not identical, knowing that it may be better to fix a bad question than it is to keep it.)
- Do we want to compare answers from the telehealth program to answers from another program?
    - If so, then we need to ask similar types of questions and ask them of similar users and ask them of programs with similar objectives.

- For example, we could ask people who have to travel to see a physician or travel to attend a training/educational session.

Another way is to ask telehealth users to compare telehealth sessions to what they would have done before or instead of telehealth. (This may not give a true picture because people may not remember the details of what happened and their feelings at the time if their last trip or telehealth session was over a month ago.)

2.1.1.2 Approach used in the Evaluation of the Pilot Project

(1) CTCs asked the patients (clients) soon after the telehealth session ends, with guidelines for situations when questions may not be appropriate.

(2) CTCs started by asking patients about the session, using open-ended and close-ended questions.

(3) CTCs recorded the patient's previous experiences with telehealth, date and time of session, reason for session, etc. The CTCs obtained this information from records and did not ask the patients, unless the CTCs were unsure of the answer.

(4) Patient's name will not be recorded on any form.

(5) On a separate form (under development, see section 2.2.3) CTCs will record and rate other aspects of the session, including whether a translator was used, whether there were difficulties in communication and whether there were any technical problems.

(6) Data were collected from August 2005 onwards. Duplicate forms and incomplete forms were noted as were the number of patients who refused.

2.1.1.3 Patient Feedback Consent Letter and Patient Feedback Form

Obtaining consent is a very important step when one is collecting information from people in the community. The person(s) collecting information must be respectful of people's right not to participate, and to only participate when they feel comfortable with the purpose of the study and they have been informed about how the information will be used.

The following page includes a Patient Consent Letter that is used to inform patients about the evaluation process, and to explain that the information they may provide is voluntary, and will be treated as confidential.

In First Nation communities it may not be appropriate to distribute this form in English without first consulting with the local health providers. It is often more appropriate to have someone translate the form into the local language and obtain a verbal consent.

Note: an additional, separate Consent form appears later for interviews.

Patient Feedback
Consent Letter

Keewaytinook Okimakanak Telehealth (KOTH) would like to ask for your comments on the telehealth service to help make the service better.

Do you feel comfortable in answering a few questions about the telehealth appointment?

Questions & Answers

Why is KOTH asking these questions?

The questions are part of an evaluation that will look at how KOTH is providing telehealth services and look for ways to improve this service. The evaluation will also give information to First Nations organizations and government agencies that help pay for the service.

Do I have to help?

It is up to you. If you decide to help, you can stop at any time or skip any question. Whatever you decide, it will not affect the telehealth service that you or your family receive.

How can I help with the evaluation?

The study will take approximately 10 minutes of your time and will involve the Community Telehealth Coordinator (the CTC) asking you a few questions.

Who is involved in the evaluation?

To conduct the evaluation, KOTH has partnered with the Centre for Rural and Northern Health Research at Laurentian University and the School of Environmental Design and Rural Development at the University of Guelph.

What happens after I complete the form?

The Evaluation Team will receive a copy of the completed form. Your name and the name of your health care professional will not be shared with the Evaluation Team.

What if I have other questions about the evaluation?

Please contact:

Donna Williams (KOTH Regional Telehealth Coordinator)
807-735-1381 ext. 51303

or

John Hogenbirk (Senior Researcher, Centre for Rural and Northern Health Research)
705-675-1151 ext. 3435

Please fax to the Balmertown office at 807-735-1089 **July 2005**

Patient Feedback
Form

CTC Section

☐ *Patient consent obtained*

☐ *Patient has copy of consent letter*

☐ Jan/Feb/March ☐ July/Aug/Sept **Year:** _____

☐ April/May/June ☐ Oct/Nov/Dec

Type of Session:

☐ Clinical ☐ Education ☐ Demo ☐ Admin meeting

☐ Family visit ☐ CTC Training ☐ Other: _____

1. How many telehealth appointments have you completed?

☐ 1 (this was my first appointment) ☐ 2-4 ☐ 5 or more appointments

2. How helpful did you find this telehealth appointment?

Very Helpful	Somewhat Helpful	Not too Helpful	Not Helpful at all	(No opinion)
☐	☐	☐	☐	☐

3. What did you like about the appointment?

4. What could be done to make the appointment better?

5. If you had to repeat this appointment, would you do it again by telehealth?

☐ Yes ☐ No

Any comment?

6. Would you recommend telehealth to another person?

☐ Yes ☐ No

Any comment?

7. Any other comment or suggestion?

Thank you for your time

PATIENT FEEDBACK DATA COLLECTION PROCESS

1. Faxes will be sent to Keewaytinook Okimakanak Telehealth by the CTCs.

2. Faxes should include the feedback form and may include the consent letter.

3. Please fax the feedback form only to John Hogenbirk at the Centre for Rural and Northern Health Research (CRaNHR).

CRaNHR fax: 705-675-4855

4. Label a binder as PHCTF EVALUATION

5. Label a tab within the binder as PATIENT FEEDBACK FORMS

6. Keep copy of first fax (feedback form and consent letter) in binder.

Questions about the form, data collection or evaluation?
Please contact:

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2.1.1.4 Analysis of Patient Feedback

Data were descriptive and so summary statistics such as averages, frequencies and percentages were appropriate. The use of inferential statistics (statistical tests) was not recommended because the sample is not random. The following cross-tabulations were useful: Q1 vs. Q2; Q1 vs. Q5; and Q1 vs. Q6. The real merit of the open ended questions may be in stimulating discussion in the community that allows feedback through normal community-specific channels, in addition to comments on the form.

2.1.2 Guiding questions for interviews at the community level

Introduction
The evaluation of KOTH's telehealth expansion project required the gathering of opinions by both the people that provide and the ones that use the service at the community level. This Interview Guide has been prepared to help contact and interview telehealth users in Sioux Lookout Zone communities.

What are Semi-structured Interviews?
Semi-structured interviews or semi-formal interviews are a way to approach people to learn about their points of view about an issue. In the case of KOTH we are interested in how clients, practitioners, and other users of telehealth describe their experiences with telehealth. The reason behind using the term "semi-structured" is that you (as the interviewer) can engage in a "conversation" about telehealth with the person being interviewed (the 'interviewee'). This is different than simply asking the questions contained in this guide. In other words, you and the interviewee are free to decide when, how, and where to do the interview, as long as the questions in the guide are asked. You can also ask other questions (follow up questions or new questions) if you think these would be useful and appropriate. It is important to remember to always obtain verbal consent from every interviewee. This requirement is explained in more under the section "Obtaining Consent".

Why are these interviews needed?
Interviews provide a window into what telehealth users feel about the service. They also help document how and why they use the services or not. Once an adequate amount of interviews and other information has been put together, it is possible to think about (evaluate) how the service is performing for its clients. In the ideal case, an evaluator will have access to interviews with many different types of users, in many communities.

Who to interview?
We were interested in hearing from patients or clients, nursing staff, health directors, Band Councillors, Chiefs, community health workers, and other people who may have something to share regarding telehealth. It is usually not easy to conduct interviews with ALL these types of users, but it should be at least attempted, with due consideration to the schedules and needs of each person.

It is also possible to conduct "group interviews" as long as the group is made up of similar types of people. For example, a group of home care workers, or a group of past clients. You may ask everyone in the group the same questions, which will likely result in a very interesting set of responses, as each participant hears what the other thinks about telehealth and is then inspired to share more information.

How are the interviews done?
You will first need to ask people to consider giving you a bit of their time to talk about telehealth. As you do this, you explain to them that you will need their consent (permission), and that the interview is voluntary. You can mention some of the questions in the guide as examples of what you will be asking. You will also ask people where and when they can meet with you for the interview.

Have pen and paper ready for note-taking. Bring an audio recorder or a video camera to record the interview. You will need to inform people that you plan to record the meeting for the purpose of being able to collect more accurate statements from them. People will have an easier time accepting a recording device if you explain why you need it. In some cases, if they seem unsure, you can also offer not to use the recorded and only take notes.

To conduct a semi-structured interview there are a few more points to keep in mind:

1. The "timing" of the interview. Timing refers to minimizing inconveniences to the interviewee.

   Suggested Action:
- ◆ Contact the people you wish to interview ahead of time to explain what the interviews are about and ask them to suggest a convenient day, time and place to meet.

2. The second, consider the person's age, male or female, community role and preferred language of interaction. This will help you in maintaining the appropriate tone, and in finding ways to better engage the interviewee.

   Suggested Actions:
- ◆ Present and explain to the potential interviewees the questions that you will be using. With the questions, include the six points under **Statement of Consent** (included below - have it translated if possible). Try to introduce the documents to the interviewee a day or two in advance, at the very least. This is more than just a courtesy, as some persons will appreciate a chance to think about the topic before meeting with you. It is useful to also offer people a choice of where they would like to meet or for you to hear their suggestion.

- ◆ In a semi-structured interview, you may ask people to elaborate on their comments, but always keep an eye on how comfortable people feel with the interview. If necessary, and when appropriate, remind them of the terms of their consent – for example, they are free to stop the interview whenever they want; skip any question without explanation; turn off the recording device at any time, etc.

3. A third point: Observe common courtesies, such as not extending the interview too long, and being careful to keep the other person's needs in mind at all times.

   Suggested Action:
- ◆ Be sure to agree with the interviewee on how long you both expect the interview to last. Ask *them* first about how much time they can set aside for you. After doing a few interviews, you will start to get a better sense of how much time they take to complete. Again, when discussing this point, remind people of the terms of the interview (see Obtaining Consent, below).

Obtaining Consent

When we do research, we ask people for their consent. This means, we ask for their explicit agreement to participate in the interview. It is important that an informal 'face-to-face' introduction of yourself and the work you are doing take place before the interview in order to allow people time to absorb the idea. You should also look over the guiding questions intended for the interview. If possible, this procedure should be carried out at least one day before the interview.

In many cases you will need to have someone translate and explain the Statement of Consent. At the moment of your meeting with the interviewee, ask the person if they have read the questions and the six points in the document called *Statement of Consent* you gave them earlier. If they have, ask the interviewee to verbally state that they agree to the interview. This step is important to make absolutely sure that the person you are interviewing understands their rights as outlined in the document. If you wish to audio-tape or audio/visual record the session, then it is mandatory to ask their consent to record before turning on the device (Consider: “I just want to be sure. Do I have your permission to video/audio record our session?”).

Statement of Consent

If the interviewee has not had a chance to look at the six points below, you may make the following presentation to them before you start the interview:

"Before we begin, I would like to remind you that:"

1. You are to be in full control of this interview and you may end it at any time. If you chose to end the meeting, you do not have to provide me with any explanation.

2. This interview is voluntary and you are under no obligation to answer any questions that you do not wish to answer.

3. No consequences of any kind will result from your ending this interview or from choosing not to answer questions.

4. All that is discussed in this interview will remain completely confidential. The information you do provide will be used in the evaluation of Telehealth.

5. You may ask to review the content of this interview at any time.

6. For the purpose of better data collection, I would like to audio (or video) record our interview.

After you finish reading these six points, ask the interviewee: "Do you agree to this interview?" Proceed if the answer is "yes". In the unlikely event that someone answers "no", end the meeting immediately and thank the person for their time. Make a note of the event for your records. The more likely objection you will encounter is to being video recorded. If this happens, ask if it is acceptable to record only the audio. You may also be able to do an interview without recording. Be prepared for every situation.

The following section outlines questions that you will need to ask people. The questions are grouped into three categories: 1) questions for users, 2) questions for health providers, and 3) others (for example Band Council members). As you will have already introduced yourself and the interview previously, you may go ahead and start with the questions as they appear here, but be aware that you may have to explain what the questions mean again.

These questions (or part of them) were generally asked of nurses, community health workers and non-health related community stakeholders, during October 2004 and November 2004; January 2005, and March 2005. For the total number of persons interviewed for the evaluation (individuals and small groups), about 55 percent were community health workers (or 16 people), 30 percent were nurses (or 8 nurses), and 15 percent (or 5 people) were clients and non-telehealth community stakeholders.

Telehealth Evaluation Questions

1. Patients

- How did you first hear about Telehealth and when was your first Telehealth appointment?
- How were you informed of your first Telehealth appointment?
- How long did you wait for your appointment? (less than one day, one day, more than one day, a week)
- How long did you wait for your last health care appointment (Non-Telehealth or Telehealth)
- What were your thoughts about Telehealth when you were notified of your first appointment?
- How long did you expect it to last?
- Who did you expect to see at the appointment?
- Did your appointment go on as you expected?
- How did you feel after your first Telehealth experience?
- Did you know the doctor who was on the screen?
- Did you feel that the doctor respected your needs?
- Did you feel the Telehealth staff respected your needs?
- How do you normally travel to your health consults?
- Have you required translation services at your health consults?
- If yes, was there a translator present when you needed one?
- Do you like where the Telehealth clinic is located?
- From your experience at Telehealth appointments, what would you say should be done differently?
- Would you attend another Telehealth session?
- Would you recommend Telehealth to anyone in your family or arrange for anyone in your family to use Telehealth? If yes, who? (children/youth, parents, elders, other)
- How do you feel about the presence of Telehealth in the community?

2. Health Providers (nurses, Health Directors, CTCs)

Background questions

- Thinking back to when you were first introduced to it, what were your first thoughts and expectations about Telehealth? Have these expectations been met? (yes/no) How?
- How would you explain Telehealth to a member of your community who has never used it before?
- How did Telehealth come to this community?

Questions about the service

- What services do you currently provide through Telehealth?
- What other services would you say could be added to Telehealth?
- How does Telehealth impact quality of clinical care?
- How can it further affect quality of clinical care?
- How often does training for Telehealth take place?
- Are you satisfied with the training?
- Who helps you with training?
- What do you need in order to improve your training?

Questions about the equipment

- Who do you speak to about Telehealth and other health related issues?
- Who helps you with the technical aspects of the technology?
- What component Telehealth equipment are you most (and/or least) comfortable using?
- How would you describe your experience with the quality of the connection, in terms of audio and video images, up to this point? How does it compare with a "face-to-face" visit with a specialist?
- If you use the Telehealth Help Desk, how would you rate it?

  a) Unsatisfactory b) More or less satisfactory c) Satisfactory d) Excellent
- How often do you use the Telehealth Help Desk?
- When was the last time you used the Help Desk?
- What was the reason for contacting the Help Desk?

Questions about perception of Telehealth

- How do you feel about the presence of Telehealth in the community?
- What obstacles/challenges do you call attention to in regards to the integration of Telehealth at this location?
- Are you willing to increase your use of Telehealth?

3. Other (Councillors, Teachers, etc.)

- Are you interested in Telehealth? Why/Why not?
- How did you become aware of Telehealth?
- How do you see Telehealth affecting the quality of health care in the community?
- How do you feel about the arrival of Telehealth here?
- Who do you communicate with the most, in the community, concerning Telehealth?
- What challenges to health care in the community are, in your opinion, effectively dealt with through Telehealth?

Remember that you can invite people to expand on their answers by asking them “follow up questions”. As people begin answering your questions (the ones on this list), they may share ideas that are not contained in this interview guide, but which may be interesting to learn more about. You are the ultimate judge of whether to ask follow up questions, so feel free to do so if the opportunity comes up and you feel comfortable enough to do it.

At the end of the interview, thank the interviewee and let them know how to contact you if they have questions or concerns about anything related to this interview. Also inform them of who to contact at KOTH for the same purpose.

2.1.2.1 Organizing and analyzing data from the interviews

The main steps followed during the evaluation of the pilot project included:

1. Identify applicable Evaluation Themes
2. Create categories of stakeholders
3. Classify Interview data
4. Classify emerging findings

1. Evaluation Themes

The focus of the analysis was on interpreting stakeholders' statements about the introduction of telehealth into their respective communities. The analysis links these interpretations to four of the five evaluation framework themes: Acceptability, Integration, Financial Impact, and Quality (of service and care).

The "Access" evaluation theme is dealt with independently, through the analysis of the quantitative data obtained for that purpose in section.

2. Stakeholder categories and groupings

Semi-structured interviews were conducted in the communities with nurses, local health workers, and to a lesser extent, with local authorities involved in health care decisions. The stakeholder groups were defined as:

Nurses: Professional nursing staff at community clinics or nursing stations. Nurses interviewed are non-aboriginal, temporary residents in First Nations communities (on average two years for Nurse-in-Charge staff).

Community health workers: Permanent residents of the community. It represents the pool of individuals who have received training, and continue to receive training and education, and in different areas of health care.

Others: Stakeholders that may or may not be involved with telehealth either as clients/patients or potential clients; and community leadership.

3. Interview data classification

The analysis followed an open coding approach, based on Grounded Theory where the researcher seeks to identify emerging themes, patterns and categories[7]. For and example of the coding process, refer to Appendix 5 where we illustrate how the original statements were organized for interpretation.

Step 1 Code numbers were assigned to statements made by interviewees that refer to or provide insight into *Evaluation* Themes. The code numbers ensure confidentiality of the information as only the researcher can link the codes to the informants.

[7] Strauss, A. & Corbett, H. 1998. *Basics of qualitative research: Techniques and procedures for developing grounded theory.* 2d. ed. Thousand Oaks, CA: Sage.

Step 2 Interview statements were organized by stakeholder categories. Interview statements were examined in terms of their basic message. The quotes were selected using a contextual insights gained from exposure to the communities and to issues of priority to stakeholders obtained during consultation events, such as the September 24th. 2004 Evaluation Advisory Committee meeting in Balmertown[8].

Step 3 The selected quotes were given a name (a statement about the statement), and these names led to "emerging concept".

Step 4 The emerging concepts were further grouped by "exposure categories" [see below] to identify and report trends over time (exposure categories) for different types of stakeholders.

- ***Exposure Categories***

Interviews were further grouped into "exposure categories" that refer to the comparative length of time passed since each stakeholder type (nurses, CTCs, local authorities, etc) was introduced to telehealth.

Through a reading of interview statements, it was found that at least some issues raised by stakeholders in each grouping regarding the components and significance of telehealth were in part a reflection of the level of experience with the use of the service.

Table 1 – Exposure to telehealth as criterion for grouping statements WITHIN stakeholder category

Stakeholder Grouping	***Least Exposure***	***Mid Exposure***	***Most Exposure***
Nurses	Statements made in the context of recent introduction to telehealth	Statements made in the context of at least six months since introduction	Statements made in the context of more than six months since introduction
Community Health Ws			
Other			

The purpose of this "exposure" dimension was to account for potential differences in the perceptions about the technology that may be due to a stakeholder's experience with its use, as opposed to other factors.

4. Classification of emerging findings

Emerging findings result from a comparison of perspectives about telehealth obtained from stakeholders. These comparisons were conducted on the basis of both the type of stakeholder and the "exposure" level to the technology. Using this instrument, it was possible to highlight differences regarding what community interests are expressed. In other words, the classification of interview statements is also explained to the extent that issues raised appear to correspond with a given exposure level. Telehealth, upon introduction, generates somewhat different concerns than it does once its presence is consolidated. The time dimension, expressed as a function of "exposure", constituted a finding in itself, used in the interpretation of the introduction of telehealth as it happens on the ground.

[8] This influence means the coding was not entirely open, as per grounded theory, in that the consultations did create a contextual understanding. This modification responds to the participatory emphasis of the evaluation exercise.

2.2 Topics and data collected from health providers

The forms in this section and interviews are directed at health providers including nurses, family physicians, general practitioners, and consultant specialists.

The Clinical Session-Averted Travel Form was intended to be completed by specialists or other consulting physicians. The form was used to give direct feedback on whether the patient would have had to travel in the past for a similar consultation. Data for the Interim Report were collected in August and October 2005.

The Health Professional Feedback Form was intended to obtain the health professional's viewpoint on the telehealth service. The form is in draft stages.

Obtaining qualitative information from health practitioners is challenging because they are very busy people. For family physicians and general practitioners, we developed a focus group format which was scheduled during one of their weekly meetings. The guide provides background on the Focus Group technique as well as sample questions.

Specialist consultants are also busy people and for this group we opted for one-on-one phone interviews. We include the cover letter that was sent to them along with the questions for the interview.

2.1.1 Averted Travel – Clinical

Background

Telehealth is expected to have an impact on patient and on provider travel burden (e.g., frequency, monetary and non-monetary costs). It is likely that some telehealth clinical sessions will avert the need to travel. The frequency or proportion of averted travel can be used to calculate the potential savings for those sessions that would have required travel in the past.

In other cases, a face-to-face consultation may be needed after the telehealth session. For example, patients may make the first contact via telehealth. During this telehealth consultation, the health care professional may decide that a face-to-face visit is required for some of these patients. In this situation, telehealth could increase the number of trips through the release of "latent demand" for health services.

The release of "latent demand" may be a long overdue consequence of ensuring “accessibility” as defined in the Canada Health Act. In communities that have historically poor access or low utilization rates, this increased demand is typically a short-term phenomenon, but with implications for service delivery. In the situation where there is an increased use of health care services, one can determine if the telehealth network is a more efficient means of service delivery by comparing the cost of telehealth to the cost of travel for all appropriate clinical sessions.

Survey Tool

The *Clinical Session Averted Travel Form* will ask the health care professional if the telehealth clinical session replaced a trip or caused a trip or had no real effect.

Data Collection and Handling

Sampling will be conducted in two, 2-week periods in July/August and September, 2005. The forms will be distributed by the local telehealth coordinator, completed by the health care professional and collected by Keewaytinook Okimakanak Telehealth (KOTH). KOTH will use the data for purposes of quality improvement and evaluation. Only anonymous data will be published in reports or presentations or shared with the evaluation team comprised of researchers from the Centre for Rural and Northern Health Research (Laurentian University) and from the University of Guelph.

Participation

The participation of the health care professional is voluntary and will not affect his/her dealings with KOTH. By submitting the completed form, the health care professional is signalling their consent with the data collection and handling process outlined above.

Questions about the form, data collection or evaluation?

Please contact:

Donna Williams, RN, BScN
Regional Telehealth Coordinator
Keewaytinook Okimakanak Telehealth
Box 340, Balmertown, ON, P0V 1C0
(807) 735-1381 ext. 51303
donnawilliams@knet.ca

John C. Hogenbirk, MSc, Senior Researcher
Centre for Rural and Northern Health Research
Laurentian University
935 Ramsey Lake Road, Sudbury, ON, P3E 2C6
(705) 675-1151 ext. 3435
jhogenbirk@laurentian.ca

Averted Travel-Clinical – KO Telehealth

1. Date _____/_____/2005
Day / Month / Year

NOTE: By completing and submitting this form you are consenting to the data collection and handling process outlined on the accompanying page.

2. Type of session:
- ☐ **initial consult**
- ☐ **follow-up consult**
- ☐ **other** (please specify): _____

3. Specialty (cardiology, psychiatry, nursing, speech therapy, etc.):_____

4. Overall, how would you rate today's telehealth session?

☐ **Excellent** ☐ **Very Good** ☐ **Good** ☐ **Poor** ☐ **Very Poor**

5. Before telehealth, would this health condition or concern have required an in-person consultation/session? (all things considered)

☐ **Yes** ☐ **Yes, possibly** ☐ **No** ☐ **Other** (please specify):

_____

6.a. Is another consultation/session needed?

☐ **Yes** ☐ **Optional** ☐ **No** ☐ **Other** (please specify):

_____

b. If Yes or Optional, can this consultation/session be done by telehealth?

☐ **Yes** ☐ **No** ☐ **Other** (please specify):

_____

7. Do you have any comment about the telehealth session?

_____

_____

_____

AVERTED TRAVEL DATA COLLECTION PROCESS

1. Faxes will be sent to Keewaytinook Okimakanak Telehealth by the Thunder Bay Telehealth coordinator (Laurie Sherrington).

2. Faxes may be sent by Telehealth coordinators at other hospitals/facilities that provide specialist services.

3. Please fax the faxes to John Hogenbirk at the Centre for Rural and Northern Health Research (CRaNHR).

   CRaNHR fax: 705-675-4855

4. Label a binder as PHCTF EVALUATION

5. Label a tab within the binder as CLINICAL AVERTED TRAVEL FORMS

6. Keep copy of first fax in binder.

NOTES

- During the PHCTF evaluation, forms will be used in July and August and perhaps into September 2005.

Questions about the form, data collection or evaluation?
Please contact:

Donna Williams, RN, BScN
Regional Telehealth Coordinator
Keewaytinook Okimakanak Telehealth
Box 340, Balmertown, ON, P0V 1C0
(807) 735-1381 ext. 51303
donnawilliams@knet.ca

John C. Hogenbirk, MSc, Senior Researcher
Centre for Rural and Northern Health Research
Laurentian University
935 Ramsey Lake Road, Sudbury, ON, P3E 2C6
(705) 675-1151 ext. 3435
jhogenbirk@laurentian.ca

2.1.4 Health Professional Satisfaction Questionnaire - DRAFT

Date: _____

To ensure continued improvement of telehealth services, please take a moment to respond to the following questions.

1. Your profession or specialty. _____

2. How many telehealth sessions have you participated in? _____

3. Have you received any training on use of the telehealth equipment? _____

   By whom? _____

5. How was session different from a face-to- face session? _____
   _____
   _____
   _____

6. What did you like about the telehealth session?
   _____
   _____
   _____

7. What would you like to see improved with regards to the telehealth session?
   _____
   _____
   _____

8. Any other comments/suggestions?
   _____
   _____
   _____

Please fax to the Balmertown Office at 807-735-1089

DRAFT

2.1.5 Questions to ask CTCs - DRAFT

Questions for the CTC

1. How long have you been working as a CTC or as a backup CTC?
   ☐ **LESS THAN 1 MONTH** ☐ **1-12 MONTHS** ☐ **MORE THAN12 MONTHS**

2. In your opinion, how good was the picture quality?
   (How was the sharpness and continuity of the picture?)

EXCELLENT ☐	**VERY GOOD** ☐	**GOOD** ☐	**POOR** ☐	**VERY POOR** ☐
Picture was very clear Just a few interruptions		Picture was ok Some interruptions		Picture was very blurry Many interruptions

3. In your opinion, how good was the sound quality?

EXCELLENT ☐	**VERY GOOD** ☐	**GOOD** ☐	**POOR** ☐	**VERY POOR** ☐
Sound was very clear Just a few interruptions		Sound was ok Some interruptions		Sound was very rough Many interruptions

4. In your opinion, how good was the communication between the patient and the provider?
   (How well did the patient and the doctor understand what each other was trying to say?)

EXCELLENT ☐	**VERY GOOD** ☐	**GOOD** ☐	**POOR** ☐	**VERY POOR** ☐		**NOT SURE** ☐

5. What could be done to make other sessions go better?

_____

_____

_____

DRAFT

2.1.6 A Guide for a Focus Group with FP/GPs

Background

A focus group is typically composed of 7-10 participants who share something in common with a topic. A focus group is carefully planned with a series of questions. It is important to create a comfortable environment where participants will share opinions about how they see a topic. In a group setting participants will share ideas and influence each other as they respond to the questions. In a focus group, the person asking the questions becomes less dominating than in an interview. Focus groups are common in market research as a way to understand peoples' attitudes and perceptions on a topic.[9]

Consent

Consent forms were sent to the convenors of the two focus groups. The forms indicated that all data would remain confidential, that involvement in all or part of the session was voluntary, and that the participants were entitled to ask and receive a copy of the summary of the session. The signed forms were mailed to the University of Guelph.

Purpose of the Focus Group with General Physicians (FP/GPs) in the Sioux Lookout District

We assume that FP/GPs more often refer patients to specialists, rather than conducting Telehealth sessions themselves [please confirm]. Therefore, this Focus Group will focus on their *overall* perception about the contribution and potential of the technology.

The purpose of the Focus Group is to learn about FP/GPs' attitudes and perceptions on Telehealth in the context of the KOTH expansion project.

1. Introduction

Participants are introduced to the purpose of the focus group, both in writing at the time of the invitation, and verbally as reminder once they are in the group session.

> *As part of the KOTH Expansion Project, an evaluation team is gathering attitudes and perceptions about Telehealth services from health providers (Family Physicians /General Practitioners, Specialists, Nurses), community-based providers (Mental Health Workers, Nurse practitioners, Community Telehealth Coordinators), other community members (Chief, Counsellors, Health Directors), and patients. A combination of quantitative and qualitative methods is being utilized. The purpose of this Focus Group is to learn about FP/GPs' attitudes and perceptions on Telehealth in the context of the KOTH expansion project. Your answers will remain anonymous, you are able to terminate the session at your discretion, and your can request to get a copy of the summary of this session. This Focus Group will be no longer than 1 hour.*

2. Questions

Focus Group work on a sequence of questions: an opening question, an introductory question, a transition question, several key questions, and ending questions. The Opening Question is used to break the ice, it focuses on a simple fact, and everyone involved is asked to respond quickly. This is followed by an Introductory Question aimed at bringing all participants into the focus of the meeting, with the aim of fostering conversation and interaction. If the group is

[9] Krueger, R.A. 1994. *Focus groups: A practical guide for applied research*. Second edition. Thousand Oaks, London and New Delhi: Sage Publications.

already familiar with each other, this question can be combined with the opening one, or with the Transition Question which helps participants see the topic in a broad sense. The Key Questions are the ones that drive the study and deserve most attention. The Ending Question brings closure to the focus group; if time is short, it needs to be quite specific.

In general terms there are two types of questions. Open-ended questions reveal what is in the participants' minds, as opposed to what the interviewer thinks is in their minds (such as "What do you think about the programme?") [10]. Towards the end of a focus group, however, it may be more practical to have close-ended questions that are specific (such as "To what extent are you pleased with the services?").

Opening question:

Can each of you please tell me/us how long you have been involved with medical services that use Telehealth technology?

Key questions:

[Access]

i) Can you share with us examples of you use Telehealth services?

ii) How has this changed the way you deliver healthcare to First Nations?

[Acceptability]

iii) What components of Telehealth are you most comfortable using?

vi) What is needed to make it more appealing to FP/GPs?

Optional: Has Telehealth lived up to your expectations? [this one could go to the end]

[Integration]

v) How do Telehealth services work side by side with other health related services/programs?

[Quality]

vi) How does Telehealth improve the quality of health care the FP/GPs deliver?

Optional: What are some of the limits of the technology and how do you deal with them?

vii) What kinds of health outcomes should we be watching for as a result of Telehealth? [reword?]

Ending questions:

['All things considered' question]

What would you say is the main contribution of Telehealth to the quality of health care delivery in the Sioux Lookout District?

[10] Open-ended questions are used in semi-structured interviews. They can help brainstorm on the different ideas people have on a topic. A flexible method to gather ideas from participants is the Delphi Technique where their suggestions get clustered in groups and new questions are posed around the emerging topics. See: Pretty, J.; Guijt; Thompson, J. and Scoones, I. 1995. *Participatory learning and action: A trainer's guide.* London: International Institute for Environment and Development , IIED.

[Summary question – asked after the moderator provides a short oral summary of the comments received]

Is this an appropriate summary of today's discussion?

[Final question - if there are 10 minutes left]

Have we missed anything?

[Final question- if there are less than 5 minutes left]

Is there anything specific you wish to add or emphasize before we end?

3. Reporting

The Focus Group session can be taped (with the consent of all participants) and transcribed. One practical option is to do a tape-based analysis where an abridged transcript is prepared with the moderator's summary and the most important contributions from the session[11].

If the session is facilitated by a moderator and an assistant moderator, it can be very useful for the assistant moderator to take notes about the process and salient content. The following questions may help the moderator and team debrief right after the session:

What were the most important issues or themes that emerged?

How did these differ from what we expected?

What points need to be included in the report?

Which specific quotes need to be included in the report?

What did we learn about the process?

What specific issues arose that should be included in interviews with Specialist (or others)?

What new ideas can we add to this Guide?

4. Equipment

An audio recorder (digital or tape-based) and/or a VCR connected to a videoconference unit if the moderators are not on-location.

2.1.7 Approach used in the Evaluation of the Pilot Project

We interviewed a total of 6 FPs/GPs and 9 specialists during August and September 2005. The number of specialists is equivalent to 20% of all specialists involved with the pilot project.

[11] Krueger, R.A. 1998. *Analyzing and reporting focus group results.* Focus group kit 6. Thousand Oaks, London and New Delhi: Sage Publications.

2.1.8 Analysis of findings from the Focus Groups with FP/GPs

1. The focus groups were conducted via videoconference and digitally recorded by K-Net services. The streaming videos were downloaded into DVD format, and taken off the streaming server.
2. A summary of each answer provided by each participant was recorded on a laptop during the videoconference.
3. Common themes were colour coded.
4. An analysis of the major themes and their significance was developed for each question.

The analysis followed an open coding approach, based on Grounded Theory where the researcher seeks to identify emerging themes, patterns and categories[12].

Example:

viii) Has Telehealth lived up to your expectations?

- Too early, not rolled out enough.
- I thought I would be using it a lot more, magic would happen, everyone would be presenting patients on TH. I realize it has to be physician-driven for us to use it. No one is pushing it.
- Hands down that is helps improve quality because of improved access.
- One physician reported that there has not been a single case where telehealth session has been a failure.
- The lack of specialists remains a barrier, with waiting times (for face-to-face and for telehealth sessions) remaining a concern.
- The need for dedicated people 'at the other end' was mentioned again.

The expectations remain positive in terms of improved access and thus far a good track record.
To live to GPs expectations, TH needs a champion doctor, dedicated people at the other end and more specialists.

QUALITY - Analysis/Significance
The emphasis on field level support (CTCs) is balanced with the need for more specialists to be referred to. The overall expectation is positive.

[12] Strauss, A. & Corbett, H. 1998. *Basics of qualitative research: Techniques and procedures for developing grounded theory.* 2d. ed. Thousand Oaks, CA: Sage.

2.1.9 Cover letter & phone interview guide for specialists

KO Telehealth
Box 340
Balmertown, Ontario
POV 1CO

(807) 735-1381
(807) 735-1089 (FAX)

June 21, 2004

Dear Name of Specialist;

As part of the KO Telehealth Expansion Project, an Evaluation Team will conduct interviews to learn about Specialists' attitudes and perceptions on Telehealth. **We would like to ask you for 10-15 minutes of your time for a phone interview.**

The phone interview will be conducted by Dr. Ricardo Ramirez from the University of Guelph. The focus of the interview is to document your perspectives on the benefits as well as the barriers for the use of Telehealth services.

Please find attached an interview guide for your reference [*see next page*]. All information will remain confidential and you will be free to terminate the interview before it is completed if you so desire. In addition, you will be able to request to see a copy of the summary of this session.

To arrange an interview, please fill out the attached fax sheet and return to Dr. Ramirez via mail or fax. Upon receiving the fax sheet, your office will be contacted to confirm the date and time of the interview.

We are well aware of how limited your time is. We thank you in advance for your contribution to this evaluation effort.

Sincerely,

Dr. Teresa Bruni
NORTH Network Medical Director

Dr. Mark Polle
KOTH Medical Co-Director

cc Dr. Anne Robinson, KOTH Medical Co-Director
Donna Williams, KOTH Regional Telehealth Coordinator
Dr. Ricardo Ramirez, University of Guelph
Enclose fax sheet and stamped envelope for reply.

Phone Interview Questions for Specialists

a) How long you have been providing consults using Telehealth technology?

b) What clinical applications of Telehealth are you involved with?

c) Can you recall a significant Telehealth session that illustrates the role and contribution of the technology and service?

d) What is needed to make Telehealth more appealing to Specialists?

e) In your experience with Telehealth, what are the key factors required to make it work?

Can you provide examples?

f) As a specialist, are you happy with the continuity of care you are able to provide utilizing telehealth?

Can you provide examples?

g) Do you feel you can provide the same level of care via telehealth as compared to face-to-face consults?

i) What are some of the limitations of the technology and how do you deal with these limits?

2.1.10 Analysis of findings from the interviews with specialists

1. All interviews were recorded directly off the telephone and transcribed.
2. Common themes were colour coded; relevant quotes were underlines.
3. An analysis of the major themes and their significance was developed for each question.

Example:

d) What is needed to make Telehealth more appealing to Specialists?

- Some sites have well trained people, nurses or people who understand the technology and cameras and have an understanding of what has to be achieved. You have to have someone there, you cannot direct the patient via TH, there has to be someone taking an active role. You cannot have someone do it for a week or two, and then another one. I have had experience with very good people on the site and with some people who are brand new and don't understand the camera, it doesn't work, I am looking at the ceiling half the time. It just makes it all much more effective if everyone is on board. (He confirms:) the human component is the number one issue to make it more appealing. Efficiency means having someone at the other side who can make it efficient. Continuity of the person at the other end is what matters. In one site, for a TH consult they call the emergency nurse, which means she leaves the patient alone.
- [If a doctor does a telehealth consult, is yet paid as a face-to-face consult yet, or not yet?] No, as far as I know it is not, it is only NORTH Network that pays it as if it were an OHIP fee level, and then they pay a small small, small amount on top, about enough for three coffees.
- I guess for those who don't do it, it is a new thing, so anytime you introduce something new, some people are resistant to that, but I think it is actually very enjoyable, it is a nice break from the routine of a busy clinical practice, you are sort of sitting in a quiet room, you are always given ample time to see the patient, whereas in real live is it often much more of a time crunch than that.

The human element (at the other end – nursing station) was noted: the human component is the number one issue to make it more appealing.
The importance of doctors being exposed to it in school.
Familiarity with the benefits of not having to travel in the North.
Among the advantages: change of pace (novelty issue) and easy of access to patients (no waiting for patients)
The need to have a fee for Telehealth Consults was raised again, those in salaried positions face less pressure to see more and more patients.

FACTORS TO MAKE IT APPEALING
The human element was emphasized and we can share testimonials from the front-line workers.
The potential of telehealth is it is very specialty-dependent.
Empathy with the challenges of travel in the North.
The novelty side may wear out, but in some cases it has an advantage in terms of Access.
The fee for service issue is worth exploring further with NORTH network and with KOTH in terms of its impact on the sustainability plan.

2.3 Topics and data collected by KOTH staff not resident in the community

2.3.1 Survey of Educational Needs

Cheryl Klassen, KOTH, conducted a base-line survey of training needs in the fall of 2005. The attached form is the version that the Evaluation Team helped revise for a second survey in the fall of 2005. Cheryl keeps track of the number of educational sessions and participants, and she also collects feedback on each session.

See “Education Coordination” under http://telehealth.knet.ca

Educational Needs Questionnaire

(Source: Cheryl Klassen, KOTH)

*All your answers will be **confidential** and used for KO Telehealth only.*

This survey is similar to the one conducted in the fall of 2004 and the results will contribute towards the Evaluation of Telehealth.

1.What community do you work for? _____

2.What is your position (job title)? _____

3. Have you had any training for this job? ❑yes ❑no

4. If you answered Yes for number 3, add a check (√) to the types of training received:

- ☐ Peer Support (Talking with other Health Care Workers)
- ☐ Learning Health Program Guidelines
- ☐ Program Supervisor Meetings
- ☐ Learning How to Complete Reports
- ☐ Health & Illness Information
- ☐ Professional Development
- ☐ Other_____

5. If you answered No for number 3, then briefly describe what courses or kind(s) of training you need to do your job better.

_____

_____

6. What courses have you heard about that you would like to take?

_____

_____

7. What Courses or Topics would you like to recommend?

_____

_____

8. Which Trainers/Instructors would you like to recommend?

_____

9. Please rank the program(s) which interest you the most (1= most interested, and 3= least interested):

- ☐ Continuing Education Diploma Programs
- ☐ Continuing Education Certificate Programs
- ☐ One-time On-the-job Training Programs

10. Please put a check mark beside the way(s) you have received training in the last year.

By tele-conference	❑yes	❑no
By video-conference	❑yes	❑no
By internet	❑yes	❑no

11. Have you accessed education at the KOTH webstreaming site? ❑yes ❑no

12. If you answered Yes to questions 10 and 11, how can KOTH improve the services?

_____

_____

13. How has the training using video-conferencing helped you and the work you do?
(Please put a check mark (√) beside all that apply to you)

- ☐ Good for Community-Based Learning
- ☐ Easier than leaving the community
- ☐ Less stress on our families
- ☐ Saves Travel Dollars so we can buy more training
- ☐ Learning is better if we can see the instructor and/or other trainees on the video too
- ☐ Other ideas _____

14. When would be the best time for future education sessions?

❑ Mornings ❑ Afternoons

15. What grade did you finish in school? _____

16. Do you have any college or university education? ❑yes ❑no

17. If you answered Yes for number 16, then what certificate or diploma or degree have you finished?

_____

_____

18. If you answered Yes for number 16 but have not finished your certificate or diploma or degree, then what post-secondary courses do you have?

_____

_____

Please return surveys to:
Cheryl Klassen, Education Coordinator, KO Telehealth Services,
Fax: 735-1089 or email cherylklassen@knet.ca
Thank you for your participation.

2.3.2 CTC Turnover form

In April 2005, KOTH was able to transform the half-time CTC positions to full-time. This form was developed to document the expected reduction in CTC turn-over.

Community (code)	# of CTCs	# of mo. w/ CTC start-Mar05	# of mo. w/NO CTC start-Mar05	# of CTCs	# of mo. w/ CTCs Mar-Dec 05	# of mo. w/ NO CTCs Mar-Dec 05	# of CTCs	# of mo. w/ CTCs Jan06 on	# of mo. w/ NO CTCs Jan06 on

2.3.3 KOTH Utilization Data

All utilization data were provided courtesy of KOTH and follow their definitions about what constitutes a session and adopts KOTH categories for type of use. At present much of the KOTH data collection process is paper-based and data extraction and collation is done by hand. Future evaluation or performance assessments would be greatly enhanced by a computerized scheduling system with appropriate and easy to use reporting features.[13]

2.3.3.1 Use by Type of Service or Location

Details of telehealth sessions from paper records were entered by KOTH personnel into a Microsoft Word document. Data were then summarized for each month by: (1) broad type of use (clinical, education, CTC training, administrative meetings, system tests, system demonstrations or family visits); or (2) use by site (First Nations Communities, referral centres, administrative sites). In addition to informing the evaluation on issues of access, data on the use and location of the sessions were used to help drive the economic model.

> One recommendation for future use would be for KOTH to purchase or develop a scheduling software that could interface with the NORTH Network scheduling software. As an intermediate step, an in-house database could be developed using Microsoft Access or Excel. It may be possible to have the KOTH database export data to NORTH Network database (or vice versa). Data could be entered in a standardized way and arranged so as to permit the generation of summary tables by type of use and by community with a touch of a button. Such a database would also permit more detailed information to be extracted – information related to scheduling needs, such as duration of each session, timing, scheduling overlaps, scheduling opportunities and so forth. Summary tables could also be generated for evaluation purposes – data such as type of used by community could be used to look for trends within each community.

[13] KOTH personnel enter referral requests into NORTH Network's scheduling software database telehealth before and some times after the session has occurred. The NORTH Network database does have report features, but these may not be sufficiently detailed for KOTH needs.

2.3.3.2 Initial vs. Follow-up Consultations

This data collection process was intended to obtain another estimate of the potential of telehealth to avert travel. The rationale is that most, if not all, follow-up consultations conducted by telehealth would have, in the past or in the absence of telehealth, required the patient to travel to see the specialist. Therefore the percent of telehealth sessions that were follow-up consultations can be used as a minimum estimate of averted travel.

Two groups of communities were identified – those with > 20 months of telehealth services and those with 10-20 months. A coin was used to select members from each group: 3 communities that had telehealth for > 20 months and 2 communities that had telehealth for 10-20 months. Two more communities with telehealth for > 20 months were selected for optional data collection.

Data were collected for sevencommunities using the process and tally sheet that follows.

Initial Consults Vs. Follow-ups Data Collection Process & Tally Sheet

1. Extract data from NORTH Network's telehealth referral form.

2. Please complete the attached tally sheet for selected First Nations communities starting in September 2003 (or the month when the first clinical telehealth session was conducted). End data collection for clinical telehealth sessions that occurred in June 2005.

3. First Nations communities include:
   - Deer Lake
   - Sandy Lake
   - Kingfisher Lake
   - Kitchenuhmaykoosib Inninuwug (Big Trout Lake)
   - Weagomow Lake (North Caribou)

Optional FN communities
   - Fort Severn
   - Wunnumin

4. Record the type of specialties that have initial consultations.

5. Fax the tally sheets to John Hogenbirk at the Centre for Rural and Northern Health Research (CRaNHR).

CRaNHR fax: 705-675-4855

6. Label a binder as PHCTF EVALUATION

7. Label a tab as INITIAL CONSULT VS. FOLLOW-UP TALLY FORMS

8. Keep copy of tally sheet in binder.

Questions about the form, data collection or evaluation? Please contact:

John C. Hogenbirk, MSc, Senior Researcher
Centre for Rural and Northern Health Research
Laurentian University
935 Ramsey Lake Road, Sudbury, ON, P3E 2C6
(705) 675-1151 ext. 3435
jhogenbirk@laurentian.ca

Initial vs. Follow-up Consultations Tally Sheet

Community name: _____ **Start date** _____ mmm/yy **End date** _____ mmm/yy

	Initial Consultation	Follow-up	Other	(specify)	Left blank
Tally					
Total count					

Place a check mark beside the Clinical Specialties that had **Initial Consultations**:

Clinical Specialty	Initial consults? ☑		Clinical Specialty	Initial consults? ☑
Allergy and Immunology	☐		Oncology	☐
Anesthesia	☐		Ophthalmology	☐
Cardiology	☐		Orthopedics	☐
Dermatology	☐		Pain Management	☐
Diabetes Education	☐		Pediatrics	☐
Endocrinology	☐		Pediatric Surgery	☐
Family Medicine	☐		Physiotherapy	☐
FAS Assessment	☐		Plastic Surgery	☐
Gastroenterology	☐		Pre Admission Clinics	☐
Geriatrics	☐		Prosthetics	☐
Hematology	☐		Psychiatry	☐
Infectious Disease	☐		Radiology	☐
Internal Medicine	☐		Respirology	☐
Movement Disorders	☐		Rheumatology	☐
Neurology	☐		Speech Therapy	☐
Neurosurgery	☐		Surgery	☐
Obstetrics	☐		Urology	☐
Occupational Therapy	☐		Other (specify)_____	☐

NORTH Network Referral Form

NORTH Network

REFERRAL FORM

FAX to 1-807-735-1089

Date of Request:

NORTH Network use	Patient Studio:	Appointment Date: DD / MM / YY	Appointment Time:

Specialty Requested: **Specialist Name** *(if known)*: FIRST / LAST

Referring Physician: FIRST / LAST **Tel:** **FAX:**

Address: **City:** **Postal Code:**

Patient Name: FIRST / LAST **Date of Birth:** DD / MM / YY **Sex:**

Health Card No.: **Version:** **Preferred Language:**

Address: **City:** **Postal Code:**

Tel (H): **(O):**

Please complete if patient is less than 18:

Mother's Name: FIRST / LAST **(W):**

Father's Name: FIRST / LAST **(W):**

Guardian Name: FIRST / LAST **Tel. (H):** **(W):**

Data extraction categories

Purpose of Consult: ☐ **Initial Consult** ☐ **Follow-up** ☐ **WSIB** **Claim No.**

Reason for referral (please attach relevant reports):

Physician Signature:

November 2002

2.3.4 Data from Government Departments/Agencies

Data were sought from government sources. These data were related to the number and cost of health-related travel and included emergency travel "medevacs" and scheduled travel "schedevacs". Medevacs are provided by the Ontario Air Ambulance Services Corporation (OAASC) and paid for by the Ontario Ministry of Health and Long-Term Care (MoHLTC). Schedevacs are pre-arranged travel for approved medically necessary services (e.g., specialist's appointments) and are provided by private or commercial airlines under contract to the First Nations and Inuit Health Branch (FNIHB), Health Canada (HC).

The number of medevac trips was obtained by request made to the OAASC. A request related to the cost of the service was made to OAASC which re-routed the request to the MoHLTC. This request for cost data is still pending.

Data on the number and cost of scheduled travel (schedevacs) were obtained through a request made by the First Nations communities to the Non-Insured Health Benefits Program of FNIHB, HC.[14] Data were provided in a different format than what was expected/requested. At the writing of the Interim Report, attempts were being made by all parties to reconcile differences between what was needed for the evaluation and what could be provided given the structure of the administrative database.

[14] A sample Band Council Resolution is provided in the next section.

2.3.5 Band Council Resolution Format

SAMPLE FIRST NATION RESOLUTION

Keewaytinook Okimakanak Tribal Council – Release of Community Medical Transportation Data

WHEREAS the Chief and Council of **(name of)** First Nation are working in partnership with **Keewaytinook Okimakanak and KO Telehealth** to improve the level and quality of health services in the **(name of)** First Nation; and

WHEREAS KO Telehealth is conducting an evaluation of its telehealth services so that it can determine how well telehealth is meeting the health and well-being needs of First Nations in the Sioux Lookout Health Zone.

WHEREAS **KO Telehealth** wishes to use community medical transportation data currently collected by FNIHB to determine what health services community members are accessing outside of the community; and

WHEREAS the KO Telehealth use of community data to compare the transportation model of health access with telehealth delivery of health services and to demonstrate how frequently telehealth is being used in each community; and

WHEREAS Health Canada and the Sioux Lookout First Nations Health Authority are responsible for collecting and managing the information concerning non-insured health benefits, transportation, health services and the other areas described in the attached 'Community Briefing Note'; and

WHEREAS the Chief and Council understand that this data will not identify personal information and that a copy of community information provided by either SLFNHA and Health Canada (NIHB) will be forwarded to the community Health Director.

THEREFORE BE IT RESOLVED THAT

The Chief and Council of the **(name of)** First Nation supports the work by KO Telehealth to have SLFNHA and Health Canada to supply the following information which will NOT need people's names, identification numbers or any individual-level data. The evaluation needs only the totals grouped by: (1) community; (2) date; and (3) type of use or type of cost.

Data Request

(Non-Insured Health Benefits Program, First Nations and Inuit Health Branch, Health Canada)

Scheduled travel (schedevacs) and emergency travel (medevacs)

(1) For each Community

(2) For each Time Period: quarterly data for each fiscal year from 2000/2001 to present-day.

  (a) Fiscal Quarters (January/February/March, April/May/June, July/August/September, October/November/December) for each Fiscal Year (2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006)

(3) For each reason for travel (clinical specialty)

(4) Totals (group-level data)

  (a) Number of trips

    (i) by patient

    (ii) by escort

  (b) Cost of medical travel (return travel)

    (i) by patient

    (ii) by escort

  (c) Number of days in health care institution (length of travel time)

      Cost of stay in health care institution

      (Signature lines)

_____	_____	_____
Chief	Councillor	Councillor
_____	_____	_____
Councillor	Councillor	Councillor
_____	_____	_____
Councillor	Councillor	Councillor

2.4 Economic Model

The economic evaluation uses a modeling approach that compares the cost of delivering the service by telehealth to the cost of delivering the service by transporting the user (Exhibit 1).

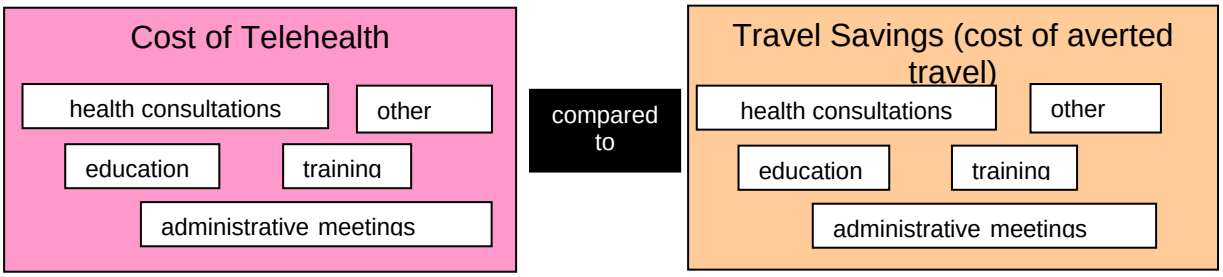

Exhibit 1. Diagram of economic modelling approach with main components

The main steps were to:

(1) Calculate total cost of all network sessions for all major categories of use. Major categories included: health (clinical) consultations, education, training, meetings and other (family visits, equipment testing, demonstrations).

(2) Estimate the percentage of sessions that would have required travel in the past and calculate, for each major category of use, the total cost if the user would have travelled (percent of telehealth that replaced or averted travel).[15]

(3) Apply an appropriate Valuation Factor to the potential savings for the network sessions that represent an expanded service. (In the past, people were less likely to travel for these types of sessions and this represents additional or "new" services.)

(4) Compare network costs to potential savings.

A model was developed for a Sustainable Program, which assumed that all 24 communities were fully operational over 3 years. The model compared average annual costs to average annual savings.

The economic model is comprised of a number of worksheets in a Microsoft Excel spreadsheet file.

[15] The model used estimated utilization for 24 First Nations communities. One network session may have one or more First Nations communities as participants and conversion factors was used to compare between network utilization and First Nations utilization. See Appendix 3 for more details.

Worksheet	Description [1]
Introduction	Brief description of the economic evaluation approach and model steps.
Theoretical Assumptions	Theoretical assumptions of the economic model.
Model Format	Brief description of model format, type of comparison and explanation of colour-coding scheme.
TH use by type	KOTH utilization data by major type of use. These data help drive the model.
TH use by time	Duration of telehealth sessions and comparison of percent use based on total time to percent use based on frequency of use.
TH use by community	KOTH utilization data by location (First Nation community, service or administrative centre). These data are used to determine per capita use to drive the model for a Sustainable Program. This worksheet contains population estimates for each First Nation community.
TH use by comm-type	KOTH utilization data by type of use by community (First Nation Community, service or administrative centre). These data are used to generate travel savings.
Chart-Usage by Type	Graph display of telehealth utilization by type of use.
Chart-Average Community Use	Graph display of average use per First Nation community by month and number of First Nation communities with telehealth services by month.
Telehealth Module	Brief description of the telehealth cost module.
Annuitization	Model assumptions related to interest rate, amortization period, cost sensitivity factor and savings sensitivity factor.
Telehealth Costs	Details of the telehealth cost module, with assumptions and cost drivers for the Sustainable Program.
Travel Module	Brief description of travel cost module. Explanation of estimates, averted travel and valuation factor for “new” telehealth.
Travel Savings	Details of the travel savings (averted costs) with assumptions and cost drivers for the Sustainable Program.
Notes-Compare Costs to Savings	This tab outlines how utilization for the entire Network and utilization for the 24 First Nations communities are related. This tab explains how costs and savings were compared and how estimated utilization can be compared between the Network and the 24 First nations communities.
User-Defined Key Variables	This tab contains an interactive listing of variables that can be customized or changed by the user. Justification, for the default value of these variables are provided.
Cost Comparison-Sustainable	Tabular comparison of telehealth costs and estimated travel savings for the Sustainable Program.
Summary of Assumptions & Output	Summary of major assumptions in the model. Graphical summary of model outputs for the comparison of telehealth costs to estimated travel savings for the and Sustainable Program.
Chart-default costs and savings	Graph of costs and savings per network session - default assumptions.
Questions and Issues	Brief description of major assumptions of the model.

[1] Refer to the Economic Model Excel spreadsheet file for more information.

3 Conclusions and Feedback Opportunities

The Evaluation Manual was developed by the Evaluation Team with feedback from KOTH, KORI, First Nations communities, health care institutions, government agencies, funding bodies and other stakeholders. The Educational Needs Questionnaire was developed by KOTH, with some feedback from the Evaluation Team. All other tools were developed by the Evaluation Team working in close consultation with stakeholders.

The tools contained within this evaluation manual could be modified to suit future evaluation or performance monitoring needs. However, too drastic a change in the tool will reduce the ability to examine changes over time. Conversely, it makes little sense to use an ineffective tool just for the sake of continuity. The appropriateness of each evaluation tool should be examined on a regular basis to ensure that the effort spent in collecting and analyzing the data will be rewarded by information that will be meaningful to the communities, agencies and other stakeholders.

Suggestions for improvements to this Evaluation Manual should be sent to:

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