## Reports of Practice

### Narrative as a Means of Understanding the Multi-Dimensional Benefits of Telehealth: An Exploration of Telehealth Stories

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#### Abstract

Telehealth is a wide range of health services delivered across distance through technology. In this technology-supported health world, sometimes, the client and his or her family can get lost as clinical consultations are counted for reporting purposes and new technologies are implemented. As a response to this situation and building on the increasing importance that narrative has assumed in health, this paper describes a practice-based education initiative called the Storyboard Project. Importantly, the term storyboard is used here in a literal sense as a place where stories are posted; it does not refer to the crafting or designing of a story for a focused purpose.

Through the stories of patients, families, and telehealth professionals considered in this paper, the reader is reminded that people—rather than technology—are the heart of the telehealth experience. Additionally, health practitioners, educators, and policy makers may experience these narratives as statements of the multi-dimensional benefits of telehealth.

#### Résumé

Télésanté (telehealth) constitue une vaste gamme de services de santé livrés à distance via la technologie. Dans ce monde où la santé est soutenue par la technologie, parfois, le client et sa famille peuvent se perdre lorsque les consultations en clinique sont comptées pour des fins de rapports et que de nouvelles technologies sont implantées. Pour relever ce défi et miser sur l'importance croissante que l'exposé de faits a pris dans le domaine de la santé, cette publication décrit une initiative en éducation à base de pratique que l'on appelle le Projet scénario (Storyboard Project). Il est important de noter que le terme « scénario » n'est pas utilisé dans le sens artistique; il ne porte pas sur la conception d'une histoire avec une raison d'être particulière.

Les récits des patients, des familles et des professionnels de la télésanté mentionnés dans cette publication rappellent au lecteur que les individus, et non pas la technologie, sont au cœur de l'expérience en télésanté. De plus, les praticiens de la santé, les éducateurs These benefits include not only physical benefits but also emotional, psychological, and familial benefits. Special appreciation is expressed to the story tellers who agreed to share their experiences through the Storyboard Project and in this paper.

et les décisionnaires peuvent faire l'expérience de ces exposés en tant que déclarations des avantages multi-dimensionnelles de la télésanté. Parmi ces avantages se retrouvent non seulement les avantages physiques, mais aussi les avantages affectifs, psychologiques et familiaux. Un merci particulier aux raconteurs qui ont accepté de partager leurs expériences via le Projet scénario et dans cette publication.

#### Introduction

Defined as interactive health-focused services that bridge physical distance through technology, telehealth is a growing field in Canada. As an example, the Ontario Telemedicine Network (OTN) is one of the largest telemedicine networks in the world, delivering clinical care and continuing education opportunities for health professionals and patients using live, two-way videoconferencing and other technologies. For 2010, it has been estimated that nearly 3,000 health professionals at more than 925 sites used OTN to deliver care (http://www.otn.ca/en/otn/about-otn).

This paper examines a selection of stories about different facets of the telehealth experience and told from various points of view. Why is it important for stories to be told by people from the world of telehealth? The technologies of telehealth have become increasingly sophisticated and, by some standards, glamorous. As an outcome, a danger has emerged: a de-focusing on the people who practise telehealth in the proverbial "trenches" and those who, as patients and families, benefit from it. As a proactive response to this potential danger, the primary purpose of this initiative is to share a collection of telehealth stories involving Canadians affected by or working in the field.

This paper is also a response to the increasing use of narrative in health care (Freshwater & Johns, 2005; Johns, 2006) and health research (Greenhalgh & Wengrat, 2008; Hardy, Gregory, & Ramjeet, 2009; Overcash, 2003). While narrative has been recognized as a powerful tool in disciplines such as literature, communication (Herman & Vervaeck, 2009), and education (Bruner, 1996; Robinson, 1981), its role in health is a more recent phenomenon.

In summary, in the stories recounted here, the importance of people and the difference that telehealth can make in their lives comprise the main message. It is also suggested that health practitioners and educators may experience these narratives as powerful motivators in their practice. Finally, the project points to the possibility of partnerships between educators in health settings and continuing educators in institutions such as universities.

#### More About Telehealth

Telehealth is about transmitting voice, data, images, and other information across distance rather than requiring patients, health practitioners, and educators to travel for consultations, health education sessions, and health-based meetings. The benefits of telehealth can include improved access and portability of healthcare services, especially among populations in rural, remote, and northern areas (Chamberlin & Associates, 2000; Grady & Schlachta-Fairchild, 2007; Jennett et al., 2003; Staggers & Bagley Thompson, 2002; Tschirch, Walker, & Calvacca, 2006; Wakefield,

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Flanagan, & Pringle Specht, 2001). In Canada, these benefits are congruent with the principles of the *Canada Health Act* (1984). Other benefits include cost and time savings for providers and clients (Jennett et al., 2003; Sevean, Spadoni, Strickland, & Pilatzke, 2008; Wakefield et al.). Access to educational programs and health-related meetings for providers, patients, and families can also be increased through telehealth (Jennett et al., 2003; Sevean et al., 2008). Sevean et al. (2008) have further suggested that telehealth may assist in the recruitment and retention of health professionals to underserviced areas.

A few examples of the clinical services provided through telehealth technologies and systems are as follows: monitoring at a distance, follow-up after a procedure or face to face consultation, remote interventions, pain management, and family support. Specific types of care facilitated through telepractice include "chronic care, basic medical-surgical care, paediatric care, coronary care, psychiatric care, obstetric care, orthopaedic care, neurologic care, newborn care, and rehabilitative care" (Grady & Schlachta-Fairchild, 2007, p. 269). In Canada, this diversity of care is now reflected in the research literature (Carter, Hudyma, & Horrigan, 2010).

Many telehealth professionals, in addition to their clinical, educational, and administrative work, are responsible for nurturing telehealth programs. In some instances, this work includes connecting health administrators and leaders; in others, it involves championing a telehealth program within the health institution and the larger health community (J. Michaud, personal communication, November 1, 2010).

While telehealth requires dedicated professionals committed to making a difference by using technology in the support of health, it also requires use of very sophisticated technologies and infrastructures. Some of these technologies include videoconferencing, call centre or teletriage technology, store forward technology (e.g., a health care professional takes a digital image of a wound or condition, uploads it to a secure server, and asks a consultant to review it), and telehomecare technology. The technologists and health professionals who use these technologies must achieve balance between the technophiles who pursue limitless tech-defined opportunities and the technophobes who may fear electronics. Stated simply, telehealth professionals seek techno-pragmatism through their use of technology in everyday life (Di Petta, 2008).

#### THE POWER OF STORIES

In literary contexts, the power of storytelling is well recognized and understood. Not only are there benefits for the storyteller, such as expression of views and sharing of experiences, there can also be value for the reader or listener. A very simple example may clarify this idea: when someone reads a newspaper or a textbook, there is the expectation they will find information. With a story, however, the reader may find something that will lead to appreciation of others' perspectives and the larger world. Generally, stories describe single events and moments in time and, therefore, possess power to affect the reader about specific issues and life events (Carter & Culliford, 2005). The stories of Anton Chekhov, regarded as one of Russia's greatest writers and the father of the modern short story, provide support for these ideas. As an example, Chekhov's story "Misery" (alternately called "Heartache") relates the heart-wrenching experiences of Iona, a poor cab driver in early nineteenth century St. Petersburg, who reaches out to his passengers after the recent death of his son. As Iona is rebuked verbally and physically three times, the reader experiences insight into the main character's profound grief as well as humanity's potential for cruelty. For many readers, a Chekhov story is a moving experience.

In line with these ideas, narrative has found a place in contemporary health care. In narrative medicine, clinical practice is complemented by narrative competence, meaning that

practitioners need to be able to recognize, absorb, metabolize, interpret, and be moved by stories of illness. It requires improvement of the provider's capacity for attention, reflection, representation, and affiliation with patients and colleagues. In the words of one practitioner of narrative medicine, it is "through the stories [of our patients that] we hear who we are" (Reichert, Solan, Timm, & Kalishman, 2008). Other health practitioners practise something called narrative therapy, helping people to re-frame their lives through narrative techniques. In both contexts, the telling of stories is integral to health and well-being.

Health research has also witnessed considerable growth in qualitative and mixed-methods research. Examples of contemporary research methods demonstrate this idea: narrative inquiry, conversation analysis, discourse analysis, hermeneutics, ethnomethodology, and life history are popular research approaches in the health field (Morse & Richards, 2002). In particular, narrative inquiry is a research methodology used in nursing, medicine, law, organizational studies, therapy, social work, counselling and psychotherapy, and education (Clandinin, 2007). Like other methodologies used by social science researchers, narrative research inquires into particular aspects of the life experience with the goal of an improved situation for the participant(s).

Stories have also been recognized as a means of learning what works (and what does not work) in health care, and as a way of reminding policy makers of the human consequences of their decisions. Mullan, Ficklen, and Ruben (2006) can provide an example of this is work. These authors have anthologized health-oriented narratives submitted to the Narrative Matters section of a health policy journal called *Health Affairs*. In the forward to this anthology, there is discussion of how narrative can put a "human face on [health] policy issues" and how the *New England Journal of Medicine* and the *Journal of the American Medical Association* publish personal reflections (p. ix). It is also suggested that the insights presented in writing sometimes derive from "the very act of writing, as if only by sitting with pen and pad can we snatch it out of the ether" (p. x).

As previously suggested, the tools and technologies of telehealth are sophisticated, and, with this, there is the possibility of moving the focus away from the people who practise telehealth on a daily basis and the patients and families who benefit from it. The purpose of the initiative described in this paper was to gather and share stories that demonstrate the various benefits of telehealth and emphasize the importance of the human element in the "tele" exchange. This way, all stakeholders are reminded of the primary reason for telehealth in the beginning.

#### THE STORYBOARD PROJECT

In 2009, three members of the Education Committee of the Canadian Society of Telehealth (CST) expressed concern that the voices of those most affected by telehealth were not always being heard within the telehealth community. All members of the working group are experienced telehealth practitioners: the working group included a telehealth manager from New Glasgow, Nova Scotia, a telehealth consultant from Toronto, Ontario, and a former manager of continuing education with the Ontario Telemedicine Network. Drawing on their expertise and experiences in telehealth, the group collaborated on what came to be called the Storyboard Project as part of the annual CST conference. While the CST conference had always included peer reviewed concurrent sessions, posters, and panel sessions, it had never offered venues for non-peer-reviewed submissions. Thus, those who worked in telehealth as health professionals rather than health researchers and those who benefit from telehealth in their lives had no opportunities to share their experiences at the conference.

The Storyboard team, working as a sub-committee of the CST Education Committee, collaborated with conference planners and the CST secretariat to email an invitation across

Canada to telehealth coordinators, telepractice nurses, and other telehealth professionals. Information about the initiative was also posted on the CST website (Appendix A). The email invited recipients to submit telehealth stories for sharing at the conference. While general guidelines were provided to assist possible participants in their story writing, participants were encouraged to tell their stories in their own ways and using their own voices. Stories could be submitted in English or French. All submissions were reviewed for general readability and some were, with the authors' permission, gently edited to correct grammar and spelling errors. Storytellers provided full written permission for sharing their stories at the Storyboard Corner as well as in publications and presentations resulting from the project.

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In total, 14 stories were submitted (n= 14): 13 stories written in English and one story written in French. Through repeated individual readings followed by discussions by Storyboard team members, each story was analyzed for its general topic and then grouped with other stories reflecting the same topic. When a story reflected more than one topic, it was categorized according to its main topic. Six topical categories emerged: specialty services made possible through telehealth (3 stories out of 14 stories), televisitation as a way of connecting family members during illness (3 stories), team-based patient-centred care (1 story), educational opportunities (2 stories), the process of telehealth and telehealth professionals (3 stories), and access to health services in remote communities (2 stories).

At the CST conference held in Vancouver, British Columbia, a colourfully decorated corner including a map of Canada and copies of the stories was set up in a high traffic area. Conference attendees visited the Storyboard Corner at their convenience over the three day conference. Monitored by members of the team, the corner attracted a wide variety of visitors who expressed appreciation for the candour of the stories. A recurring message was that this grassroots initiative reminded conference participants of telehealth's primary purpose—to care for people and families who might not otherwise have access to healthcare. Visitors also spoke about the multidimensional benefits of telehealth in the lives of individual people and families.

Selections from six stories are provided here with each selection representing one of the six topic areas listed above. The reader is taken to different locations in Canada where telehealth is available. In some instances, the storyteller uses the first person narrative point of view while, in others, the storyteller uses the third person point of view. While permission was received to share the stories verbatim at the Storyboard Corner and in other venues including this paper, the authors have omitted details in some stories because of personal or sensitive content. The use of ellipsis represents this kind of modification. Additionally, in some stories, there may be an element of expression-related awkwardness. As previously noted, the Storyboard team did edit for basic grammar and spelling; however, it did not modify the writers' style beyond such corrections.

#### Topic 1: Specialty Services Made Possible Through Telehealth

This story is told by a health practitioner who was part of a team that implemented a telenephrology program (nephrology is a specialty dedicated to health of the kidneys). Through this program, dialysis was made available to patients in small communities in New Brunswick.

On the occasion of the tenth anniversary of the founding of the tele-nephrology program, we can now assess the impact that Health Canada's initial investment has had.

First, the project has clearly had an impact on patients' quality of life. All telehealth professionals recognize the benefits of delivering health care and services remotely. . . . No longer did patients have to travel two or three hours under sometimes difficult and

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dangerous conditions and then spend at least five hours connected to a machine while it cleansed their blood three times a week. While it is difficult for a healthy person to maintain this regimen for years, imagine the toll it takes on patients already weakened by their kidney condition.

One patient shared her joy at her improved quality of life. She explained, "The satellite unit has changed my life. No longer having to travel to get treatment has restored my energy level. My living situation has improved so much I can now get back to doing the little things I had been forced to give up."

The project has also had a considerable impact on client access to care and other related services. Patients now receive specialized services in their communities. Today, satellite units exist in six New Brunswick cities, namely, Miramichi, Dalhousie, Tracadie-Sheila, Sussex, Upper Waterville, and Fredericton. As well, other centres have opened in Quebec in cities such as Trois-Rivières.

The model has indeed proven itself. In fact, our tele-nephrology project generated so much interest that the team has been invited to promote it at national and international conferences. As an aside, while presenting a paper in Montpellier in Southern France, one of our nephrologists spoke via videoconference with one of his patients in Miramichi. This patient, who was very moved to learn that he was being seen in France, told the audience he had participated in the raid on Dieppe and was proud to have fought for them; this prompted a rousing standing ovation in the middle of a medical conference!

#### **Topic 2:** *Tele-Visitation as a Way of Connecting Family Members*

This story is told by a health provider who, as part of a team, facilitated family visits between a mother in Winnipeg, Manitoba, and her children in northwestern Ontario.

In Ontario and Manitoba, telehealth played a central role in bringing together a young mother from a remote Aboriginal community and her family. This mother had moved from her remote community in Northern Ontario and her children when she became very ill over four years ago to . . . Winnipeg, Manitoba. Due to the distance and travel costs, the children . . . had seen their mother only two times in four years as she requires 24-hour care.

Upon discovering MBTelehealth, a social worker told the young woman and her care providers that she had discovered a way to help this family "visit" and stay connected. In less than two weeks, the young woman was taken to a videoconference room . . . that is equipped with telehealth equipment. Within moments, the young woman watched on the screen as her children entered a small room in the nursing station in their community. When the young woman sang Happy Birthday to her . . . daughter, the young girl wept. The young woman had many questions for her children about their education and interests. She asked them to stand up so she could appreciate how much they had grown. She noted new glasses and hairstyles. Everyone delighted in the richness of this amazing technology that allowed the family to "visit" with each other.

During that first visit, the emotion of seeing his mother proved too much for the woman's ... son. ... But, he was present two weeks later when the next televisitation was sched-

uled. . . . All of the children were struck by the fact that their mother's health had improved so significantly.

Televisitations have continued to happen after that initial visit. The children are always eager to have the next visit scheduled, and they attend promptly without fail. The December Christmas visit was cause for special celebration and the children opened the gifts sent by their mother. She was pleased to see the joy on their faces as she celebrated a piece of Christmas with them from a distance.

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#### Topic 3: Patient-Centred Care Through Telehealth

This story is told by a telehealth nurse in Nova Scotia. The mother of the young girl in the story was extremely excited that this story would be shared, so no details have been omitted.

In Nova Scotia, a young person has severe disabling multiple sclerosis. The care she requires is complex and is delivered by a team of dedicated people. At the top of the list is her loving family who are her most important supports. However, they must work closely with the rest of her health team to provide focused care.

How, though, do these family and team members connect to support her? The team participates in regular "telehealth" appointments. Through the use of telehealth (live video conferencing), the patient, her family, and her health professionals meet to discuss and develop care plans. With the specialist and some team members located in Halifax at the Nova Scotia Rehabilitation Centre and the family physician and other team members at the Pictou County Health Authority, the role of telehealth is indeed important.

And does it work? To quote the patient's mother, "Where else do you get a chance to bring everyone together?" The patient and family benefit from a more holistic approach to care. As well, because of this patient's mobility issues, travelling presents some complex problems. The telehealth appointment, while requiring travel to the local healthcare facility, eliminates the more involved day-long process of travelling to Halifax. There are also obvious cost savings to the family, and for the health

care professionals, there is opportunity for interaction that would only be possible if they all met in one place in person. The message: technology does not provide care but it can bring together the people who do.

#### **Topic 4:** Educational Opportunities

This story is told by an Ontario telehealth educator responsible for coordinating continuing education sessions for health professionals as well as for patients and their families. It describes an innovative educational session where patients and families participated in an educational session on gastrointestinal health issues.

One of my favourite telehealth education stories is the bad gut story. Few of us like to talk about our bad gut but many of us live with this. We also live with insufficient information and limited access to the experts who might help us.

The bad gut story unfolded when the education staff at the Ontario Telemedicine Network were approached by a representative of the Canadian Society of Intestinal Research (CSIR): Could we facilitate an educational session on irritable bowel syndrome (IBS) delivered by a leading Canadian gastroentronologist to patients and their families across Ontario? Well, the obstacles to doing this were several: CSIR did not belong to OTN; the session was proposed for evening delivery which OTN does not typically support; and, prior to this request, OTN had not had a great deal of experience with patient education and we wondered what the additional issues might be. Still, the team knew that this was, in all likelihood, worth doing. We understood the need for this kind of education and, as a team that lived by the philosophy "no guts" no glory (pun intended!!), we bit.

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In the end, the session went beautifully (the truth be told, perfection is tough to find in large multi-point sessions but we came close), and we connected 15 sites in communities large and small across Ontario. There were people who had never been at a videoconference but who had no fear of the technology because it gave them access to an extremely warm, understandable, and caring expert. In some cases, family members came on behalf of patients. In most other instances, studios, rooms, and auditoriums were filled with patients who eagerly and openly shared their concerns. In fact, the session could have gone on for an additional hour as people were clearly grateful to have access to this information.

In the end, the bad gut session was offered again the following year. While no illness is pleasant to live with day in and day out, gastrointestinal challenges tend to be among those that we don't talk about and that we don't always share. Knowing that a session helps even a handful of people—let alone the 260 people who came out to this session—affirms the power of education and technology is making a difference in people's lives.

#### **Topic 5:** The Process of Telehealth and Telehealth Professionals

This story is told by a telehealth nurse who recounts another telehealth nurse's experience with a physician after a telehealth consultation. The story emphasizes how important client privacy is in telehealth and the processes used to ensure it.

All of us who work in telehealth know the importance of client privacy. Hence, everyone does his or her best to ensure that, in all telehealth situations, strategies are taken to protect the full interests of the client. This way, everyone wins. In one case though, the real winner was privacy itself. If walls could talk, this is what they would tell us. . . .

When the nurse left the room [after preparing the client for his consultation and locking the door from the inside], she asked the client to leave the door open and to stop by the desk when his session was finished so staff could show the next client in. As things happened, this client [completed] his session, left, and neglected to stop at the desk.

A lengthy time passed and the nurse felt that she should check on the client. When she got to the room, the door was still closed and locked. When she listened, she could not hear anyone talking, so she knocked on the door. A voice very clearly responded "Come in" to which the nurse responded "I can't the door is locked."

The voice in the room then said, "Sorry but I can't help you."

Very confused by this response, the nurse asked the person to let her in again. The voice replied, "I wish I could help you but I can't. You will need to get the nurse."

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Suddenly, the nurse realized that there was no one in the room and that she had been talking to the specialist who was on the telehealth call all along. Very embarrassed, she excused herself and called for someone to come with a key to unlock the door. Certainly, this was "one up" for privacy.

### **Topic 6:** Access to Health Services in Remote Communities Through Telehealth

This story provides evidence of the impact that telehealth can have on the lives of people who live in remote and northern communities including Aboriginal communities.

Living on an isolated reserve . . . in remote Northern Ontario makes it difficult for community members to receive high quality health care. Many of us have to travel distances to see specialists. Keep in mind that everything on a medical trip is very limited and that travel can be very difficult, especially for the elderly and the sickly. We hear stories where an elderly person does not have an approved escort go with him or her on the trip to see a doctor. Very few understand the English language and most cannot speak it. Imagine . . . being a non-speaker of English and landing in a city where everything is different from reserve life; you are stuck at an airport because you do not know where to go.

Happily, many elders have heard about and seen the wonders of getting to see their doctors on TV! They now have the option of seeing the doctor right here in the community regardless of the location of the doctor who could be 100 or 1,000 miles away. Now that is a story. That is telemedicine.

#### Conclusion

Based on the stories highlighted in this paper, it is clear that telehealth is about providing care for people who live at a distance from required health services and facilities. Canada, given its small population and vast geography, faces some unique access barriers: telehealth programs offer practical solutions that benefit both patients and families. These benefits extend well beyond physical benefits to include emotional, psychological, and familial benefits.

While the stories were grouped by dominant topic, there is a strong connecting thread among the six categories, namely how patients and families benefit from telehealth. As the telenephrology story reveals, telehealth can vastly improve people's lives: "The satellite unit has changed my life. No longer having to travel to get treatment has restored my energy level. My living situation has improved so much I can now get back to doing the little things I had been forced to give up." Through stories such as this, telehealth professionals, including providers and educators, are reminded of the potential of telehealth to better people's lives.

Stories such as the stories about the woman from Nova Scotia with crippling multiple sclerosis and the woman separated from her children, further demonstrate the capacity of telehealth to provide not only physical care but also support. In both cases, telehealth helped diminish the obstacles to social and emotional support. Importantly, in each story, the patient and his or

her family members were beneficiaries. Not highlighted in this paper were two other stories involving infants: the first focused on a young family in which the father was dying and a new baby was born several weeks premature; the second was a story of a young father who was half a country away on the occasion of his child's birth. In each situation, telehealth was used to connect loved ones during these important life moments.

The capacity of telehealth to overcome the challenge of physical distance in remote communities, with or without the additional challenge of dealing with a distinct cultural identity, is particularly evident in the story set in northwestern Ontario. Not having to send a patient hundreds of kilometres away for care is quite clearly a positive alternative to what could have been a costly and socially traumatic experience. The message about access found in this story is one that health policy makers and planners need to hear.

People living with health problems that society does not like to talk about—gastrointestinal problems, for example—are at the centre of the bad gut story and a number of other stories not recounted here. These stories tell how patients and their families, as well as health professionals benefit from educational and professional development opportunities facilitated through telehealth infrastructure. With continuing education available through the Internet, videoconferencing, web conferencing, and other technologies, providers do not have to leave their communities as frequently to access professional development opportunities. Additionally, there are important lessons and best practices to be shared between post-secondary institutions with a continuing education mandate and the telehealth field. Futher, there are opportunities for collaborative education and research initiatives. For instance, medical schools, teaching hospitals, professional organizations, and colleges and universities across Ontario partner regularly with the Ontario Telemedicine Network to deliver professional development sessions to health providers. Administrative work and research are also carried out through such partnerships.

The people who make telehealth happen are recognized in the story about privacy where a nurse found herself talking through a locked door to a physician on a videoconference screen. Telehealth providers are extremely aware of their responsibilities and take special safeguards to protect the privacy of their patients. In another story not presented in this paper, telehealth nurses are praised for their "can do" attitudes and problem-solving skills. Recognized in yet another story are the technologists and schedulers who, through expertise carried out behind front lines, make telehealth happen on the technical level.

For some Canadians, telehealth may be a new or different kind of health service. By learning about telehealth through story, these same Canadians may grow in their understanding of it and even choose to use it. In the words of Mullan et al. (2006), "If a picture is worth a thousand words, a good story is worth many columns of statistics. Stories present ideas, conflicts and sometimes, resolutions. They have depth and dimension, drama and emotion, making them more memorable than data alone" (p. xiii).

In closing, the health services that telehealth can support are exciting and timely, especially in these times of challenge in the Canadian health care system. For the writers of this paper, what is even more exciting is what the stories have revealed—that telehealth can benefit the lives of individual Canadians, families, and communities on several levels. Finally, the narratives presented in this paper have re-focused the lens and sharpened the picture on the potential of health, technology, and education in a context of person-centredness.

#### References

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- Bruner, J. S. (1996.) Frames for thinking: Ways of making meaning. In D. Olson & N. Torrance (Eds.), *Modes of thought: Explorations in culture and cognition* (pp. 93–105). New York: Cambridge University Press.
- Carter, L., Hudyma, S., & Horrigan, J. (2010). Investigating the educational needs of nurses in telepractice: A descriptive exploratory study. *Canadian Journal of University Continuing Education*, 36(1), 1-20.
- Carter, L. & Culliford, L. (2005). *An introduction to writing and English studies*. Sudbury, ON: Laurentian University, Envision program.
- Chamberlin, M., & Associates. (2000). *The Northern telehealth network pilot year evaluation*. Final Report to Saskatchewan Health, Saskatoon, 1–12.
- Clandinin, D. J. (2007). Preface. In D. J. Clandinin (Ed.), Handbook of narrative inquiry: Mapping a methodology (pp. ix–xvii). Thousand Oaks, CA: Sage.
- Di Petta, T. (Ed.). (2008). *The emperor's new computer: ICTs, teachers and teaching*. Rotterdam: Sense Publishers.
- Freshwater, D., & Johns, C. (Eds.). (2005). *Transforming nursing through reflective practice*. Oxford: Blackwell.
- Grady, J. L., & Schlachta-Fairchild, L. (2007). Report of the 2004–2005 international telenursing survey. *Computers, Informatics, Nursing*, 25(5), 266–272.
- Greenhalgh, T., & Wengrat, T. (2008). Collecting stories: Is it research? Preliminary guidance based on a Delphi study. *Medical Education*, 42, 242–247.
- Hardy, S., Gregory, S., & Ramjeet, J. (2009). An exploration of intent for narrative methods of inquiry. *Nurse Researcher*, 16(4), 7–19.
- Herman, L., & Vervaeck, B. (2009). Narrative as cultural negotiation. Narrative, 17(1), 111–129.
- Jennett, P. A., Affleck Hall, L., Hailey, D., Ohinmaa, A., Anderson, C., Thomas, R., ... Scott, R. E. (2003). The socio-economic impact of telehealth: A systematic review. *Journal of Telemedicine and Telecare*, 9(6), 311–320.
- Johns, C. (2006). Engaging reflection in practice: A narrative approach. Oxford: Blackwell .
- Morse, J. M., & Richards, L. (2002). *Read me first for a user's guide to qualitative methods.* Thousand Oaks: Sage.
- Mullan, F., Ficklen, E., & Ruben, K. (Eds.). (2006). *Narrative matters: The power of the personal essay in health policy*. Baltimore, MD: Johns Hopkins University Press.
- Overcash, J. A. (2003). Narrative research: A review of methodology and relevance to clinical practice. *Critical Reviews in Oncology/Hematology*, 48, 179–184.
- Reichert, J., Solan, B., Timm, C., & Kalishman, S. (2008). Narrative medicine and emerging clinical practice. *Literature and Medicine*, 27(2), 248–271.
- Robinson, J. A. (1981). Personal narratives reconsidered. Journal of American Folklore, 94, 58-85.
- Sevean, P., Spadoni, M., Strickland, S., & Pilatzke, S. (2008). Bridging the distance: Educating nurses for telehealth practice. The *Journal of Continuing Education in Nursing*, 39(9), 413–418.

- Staggers, N., & Bagley Thompson, C. (2002). The evolution of definitions for nursing informatics: A critical analysis and revised definition. *Journal of the American Medical Informatics Association*, *9*(3), 255–265.
- Tschirch, P., Walker, G., & Calvacca, L. T. (2006). Nursing in tele-mental health. *Journal of Psychosocial Nursing*, 44(5), 20–27.
- Wakefield, B., Flanagan, J., & Pringle Specht, J. K. (2001). Telehealth: An opportunity for gerontological nursing practice. *Journal of Gerontological Nursing*, 27(1), 1–8.

#### **BIOGRAPHIES**

Lorraine Mary Carter is the academic director at the Centre for Flexible Teaching and Learning at Nipissing University in North Bay, Ontario. Her educational and research interests include critical thinking, scholarly discussion in online and other technology-enhanced learning settings, technology-enabled education in health care settings, faculty and instructional development, telemedicine, and narrative for educational and therapeutic purposes.

Lorraine Mary Carter est la directrice pédagogique du centre pour l'enseignement flexible et l'apprentissage (Centre for Flexible Teaching and Learning) de l'Université de Nipissing à North Bay, en Ontario. Ses intérêts de recherche portent sur la pensée critique, la discussion savante en ligne et dans d'autres environnements d'apprentissage améliorés par la technologie, l'éducation facilitée par la technologie dans des environnements de soins de santé, les facultés et le développement scolaire, la télémédecine et les exposés aux fins éducatives et thérapeutiques.

Linda Muir is the manager of Telehealth Services for Colchester East Hants, Cumberland County, and Pictou County Health Authorities in northern Nova Scotia, in partnership with the Nova Scotia Telehealth Network. Most of her 38-year nursing career was in emergency nursing before switching to telehealth in 1999 as site coordinator at the Aberdeen Hospital in New Glasgow, Nova Scotia. Linda accepted her current leadership role in 2001.

Linda Muir est gestionnaire des services de Télésanté pour les régies de santé de Colchester East Hants, Cumberland County, et Pictou County dans le nord de la Nouvelle-Écosse. La majeure partie de ses 38 ans de carrière d'infirmière a été passée à l'urgence avant son transfert au réseau de télésanté en 1999 en tant que coordonnatrice de site à l'Hôpital Aberdeen de New Glasgow, en Nouvelle-Écosse. Linda a accepté son rôle de leadership actuel en 2001.

Doris McLean is a nurse and independent health education management professional who lives and works principally in the Toronto area. Telehealth is an area of special expertise for Doris, who was a lead in an educational module about telehealth for nurses through Centennial College.

Doris McLean est infirmière et professionnelle indépendante de la gestion de l'éducation de la santé et travaille principalement dans la région de Toronto. Télésanté est un domaine d'expertise spéciale pour Doris, qui a mené un module éducationnel sur la télésanté pour des infirmières au Centennial College.

# Appendix A: Invitation to Participate

Do you have a telehealth story? It's time to share it.

Would you like to learn more about the wonderful work of your colleagues in telehealth? Then, it's time to learn about the Storyboard Project.

The Storyboard Project began out of a deep appreciation of the work that telehealth practitioners do every day. In other words, if you are a telehealth practitioner, this project is about you. We know that you affect the lives of patients and their families every day and that this should be celebrated.

Through this project, you as a facilitator of telehealth, including clinical consultations, educational sessions, and health-related administrative sessions, have a voice. You have an opportunity to share your experience through a story.

The terrific thing about the Storyboard Project is that everyone can participate. You don't have to be a researcher or an expert or even a writer; you simply need to be someone who has something to share. (The Storyboard team can help you with the wording of a story if you like.)

To learn more about this project, please contact: XXXXX.

What are you waiting for?