CANADIAN SOCIETY OF TELEHEALTH

SOCIÉTÉ CANADIENNE DE TÉLÉSANTÉ

THE 8TH ANNUAL MEETING OF THE CANADIAN SOCIETY OF TELEHEALTH

WINNIPEG

September 25-27, 2005

Catalyst for Change: Telehealth, Reform and Renewal

CONFERENCE PROCEEDINGS

The Canadian Society of Telehealth (CST) is the first Canadian non-profit health association devoted to Telehealth. The organization promotes all aspects of telehealth, which is the use of information and communications technologies to deliver health care over large and small distances. The CST is proud to be the acknowledged Canadian leader in multi-disciplinary and inter-sectoral education and discourse in telehealth. Launched in 1998, annual CST conferences have attracted more than 350 delegates each year. Please visit the CST website at www.cst-sct.org for information about the next annual conference.

Membership in the Canadian Society of Telehealth is open to individuals and organizations interested in telehealth. CST members come from a wide variety of backgrounds including clinical providers, program managers, healthcare researchers, students, institutional administrators, health informatics professionals, telehealth service consultants, government, and technology providers. For a list of membership benefits, costs and application forms please visit the CST Website at www.cst-sct.org or contact the CST Secretariat at E-mail: cst@eventsmgt.com.

Vision

Optimal health and healthcare – anyone, anytime, anywhere - enabled by information and communication technology.

Mission

The Canadian Society of Telehealth leads the transformation of health care through information and communication technology by providing a forum for advocacy, communication and sharing of resources among our communities of interest.

Core Values

As we fulfill our Mission and pursue our Vision, we will:

- above all, focus on improvement of the health and health care of individuals and communities
- be respectful of the diverse cultures and environments
- embrace innovation, rigorous evaluation and dissemination of new knowledge
- collaborate in building capacity for utilization of information and communication technology in health care

Benefits of CST Membership

- Networking opportunities to make contact with members from across Canada
- Members' Only website resource materials
- Support to members from a recognized organization
- Access to Special Interest Groups and their educational sessions
- Specialty workshops
- International initiatives and linkages
- Annual conferences
- Enhanced relationships with related organizations
- Access to telehealth standards and references

Contact Us

Canadian Society of Telehealth
www.cst-sct.org
cst@eventsmgt.com
Phone: 613-531-9476
Fax: 613-531-0626

Mailing Address:
4 Cataraqui Street, Suite 310
Kingston Ontario K7K 1Z7
Canada

Société canadienne de télésanté

La Société canadienne de télésanté (SCT) est la première association canadienne de santé à but non lucratif dédiée à la télésanté. Cette organisation fait la promotion de tous les aspects de la télésanté et elle consiste en fait à l'utilisation des technologies de l'information et des communications pour offrir des soins de santé sur de petites ou de grandes distances. La SCT est fière d'être reconnue comme un leader canadien au niveau de l'éducation et du discours multi-disciplinaires et inter-sectoriels en télésanté. Inaugurées en 1998, les conférences annuelles de la SCT attirent plus de 350 délégués. Veuillez visiter le site internet de la SCT à www.cst-sct.org pour plus d'information sur notre prochaine conférence annuelle.

Tout individu ou toute organisation intéressé par la télésanté peut devenir membre de la Société canadienne de télésanté. Les membres de la SCT sont issus d'un large éventail de carrières, y compris des fournisseurs de soins, des gestionnaires de programmes, des chercheurs en santé, des étudiants, des administrateurs d'institutions, des professionnels en informatique de la santé, des consultants en services de télésanté, des fonctionnaires ainsi que des fournisseurs de produits technologiques. Pour obtenir une liste des bénéfices réservés aux membres, des coûts et des formulaires d'inscription, veuillez visiter le site internet de la SCT au www.cst-sct.org ou contacter le Secrétariat de la SCT (courriel : cst@eventsmgt.com)

Vision

Santé et soins de santé optimaux – pour tous, en tout temps, partout – rendus possibles au moyen de la technologie en information et en communication.

Mission

La Société canadienne de télésanté est à l'avant-garde du changement dans le domaine de la santé grâce à la technologie de l'information et des communications en offrant un forum pour la promotion, la communication et le partage des ressources parmi nos communautés d'intérêt.

Valeurs fondamentales

Tout en accomplissant notre mission et notre vision nous mettrons par-dessus tout l'emphase sur l'amélioration de la santé et des soins de santé des individus et des communautés, le respect des divers milieux et cultures, la promotion de l'innovation, une évaluation rigoureuse, la dissémination des nouvelles connaissances ainsi que la collaboration dans le développement de la capacité d'utilisation des technologies d'information et de communication dans le domaine de la santé

Bénéfices pour les membres de la SCT

- Occasions de réseautage avec les membres partout au Canada
- Site internet de ressources réservé aux membres
- Soutien aux membres d'un organisme reconnu
- Accès aux groupes d'intérêts spéciaux et à leurs sessions éducatives
- Ateliers spécialisés
- Initiatives et liaisons internationales
- Congrès annuels
- Amélioration des relations avec des organismes reliés
- Accès aux normes et renvois de la télésanté

Pour nous contacter

Société canadienne de télésanté
www.cst-sct.org
cst@eventsmgt.com
Téléphone : 613-531-9476
Télécopieur : 613-531-0626

Adresse postale :
4 rue Cataraqui, bureau 310
Kingston (Ontario) K7K 1Z7
Canada

Reminder

- CST AGM
  Sunday September 25, 2005
  Concert Ballroom from 16:00 to 18:00

- Welcome Reception immediately following

Telehealth Technology Case Studies

MTS Allstream presents a series of practical case studies that demonstrate how progressive organizations in health and other industries are using technology to overcome distances. Three organizations share their unique needs, reasons for adopting solutions, implementation processes and outcomes.

- **University of Northern British Columbia** - a small regional university curbs out-migration of their medical students from their home communities using a distance education solution unique in North America.

- **Salem Home** - a rural extended care facility goes paperless and real time with electronic medical records, diagnostic imaging, charting, and scheduling at the point-of-care.

- **Home by Avi** - an organization brings back the 'human touch' to its widespread members through Internet video conferencing at a minimal cost.

Please meet the team at our trade show site. Learn the details of how innovative organizations are overcoming distances.

Sunday, September 25, 2005
Presentations at: 1:00, 2:00 and 3:00 p.m.

Gold sponsor of the CST Conference

Home grown, just for you.

As a leading provider of collaborative networks and tele-health solutions, TELUS delivers innovative ways to provide health care despite distances and shortages of local health care providers. We are committed to improving access to quality care and patient-centric integrated care delivery. And we are proud to be a sponsor of the 8th Annual Meeting of the Canadian Society of Telehealth.

CONNECT WITH US TODAY. For more information about solutions for healthcare, contact your TELUS Account Executive or visit telus.com/healthcare.

TELUS®

the future is friendly®

ACKNOWLEDGEMENTS / REMERCIEMENTS

The Canadian Society of Telehealth and the Local Organizing Committee gratefully acknowledges the generous contributions and financial support of the following sponsors

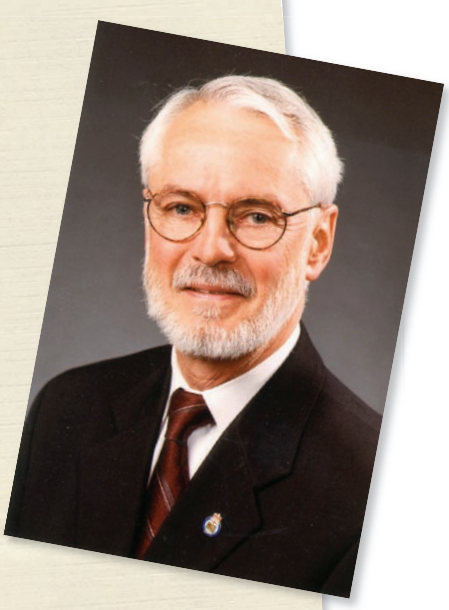
GOLD

BRONZE

FRIENDS

SPONSORS

WELCOME FROM THE PROVINCE OF MANITOBA



MINISTER OF HEALTH

Room 302
Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

Dear Participant:

I am pleased to welcome you to the 8th *Annual Meeting and Conference of the Canadian Society of Telehealth.*

Not only is Manitoba granted the honour of hosting the event, but Manitoba is also provided with an avenue by which to share with others its contributions in the area of telehealth.

Telehealth use is growing rapidly across the country. The need to share best practices, to restructure, to redesign and to learn from failures and successes becomes increasingly important. The conference roundtables and workshops will provide you with an overview of the issues facing the telehealth industry, as well as an opportunity to network with more than 400 participants across Canada.

I wish everyone a productive, informative, and enjoyable time at the 8th *Annual Meeting and Conference of the Canadian Society of Telehealth.*

Sincerely,

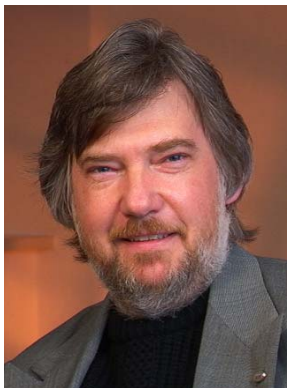
Tim Sale

Manitoba

CANADIAN SOCIETY OF TELEHEALTH

SOCIÉTÉ CANADIENNE DE TÉLÉSANTÉ

OUR VISION:
Optimal health and healthcare, anyone, anytime, anywhere - enabled by information and communication technology.



Dear Delegate,

On behalf of the Canadian Society of Telehealth and your colleagues, many of whom you will meet again this week, I welcome you to CST's Telehealth 2005.

It is pleasing to see the Conference in Manitoba this year. The CST decided it should make every effort to bring the conference to members, rather than always members to just one or two locations. We are slowly accomplishing this goal with each geographic region across Canada now taking it in turns to host the conference. This allows local Telehealth proponents to showcase their interest and activities in Telehealth, and provides each of us the opportunity to learn a little more about Telehealth in Canada. Our experience in Winnipeg will confirm this.

On behalf of each of us, I extend congratulations to those who have given so freely of their time in setting the scenes and organizing what promises to be a wonderful and successful meeting. Challenges always arise, and our hosts this year have risen to and overcome each one, preparing the way for us to enjoy the local culture, learn more about Telehealth, and most importantly - enjoy ourselves while doing so.

Looking more broadly, our Society continues to grow and to attract dedicated individuals. I suspect we each join and support the CST because we believe; because we can envision the benefits that Telehealth is having, and will continue to have, on our health and healthcare systems. We believe in and understand our significant responsibility – to succeed in researching, promoting, debating, deciding on, implementing, and integrating only appropriate Telehealth solutions. This cannot be done alone. It is our collective will and wisdom as members of CST that will allow us to meet this responsibility. Supporting us are our volunteers – our Board, Chairs and members of our Committees, and Chairs and members of our SIGs – and our Executive Director and Secretariat. These individuals expend many hours on our behalf, and I would like you to take a moment of your time during the conference to say thank you.

As always, it has been a busy year. Our Board and staff have worked diligently to profile Canada and the CST, to be at decision-making tables, to represent your interests, and to build on past plans and reflections. The CST has experienced sufficient growth in its short history to understand that it has been successful in addressing many member and societal needs to this point in time. But in order to better meet the current needs of its members and society, as well as adapt to and accommodate future needs, the CST must evolve and grow.

The CST has now embarked upon a vigorous and strategic period of growth using our 'Business Plan 2005-2006' as the roadmap by which this evolution and growth will occur. The Business Plan, built upon earlier planning initiatives and identified priorities, now sets the sails for the future growth and development of the Canadian Society of Telehealth over the period to December 2006. Our efforts will both sustain the Society and ensure the structured development of Telehealth initiatives across Canada, for the ongoing benefit of the entire Canadian population.

I hope each of you will have an enjoyable and memorable visit to Winnipeg, and a successful experience at Telehealth 2005.

Richard E. Scott, *President, CST*

OUR ROLE:
Enabling the Incubation and Adoption of Telehealth.

WELCOME TO WINNIPEG!

On behalf of the CST 2005 Local Organizing Committee, it is our pleasure to welcome you to Winnipeg for the **Canadian Society of Telehealth's 8th Annual Meeting and Conference.**

The conference theme, **Catalyst for Change: Telehealth Reform and Renewal,** will be an opportunity to explore telehealth's potential to support reform and renewal occurring across the health care system through changes in practice and the increasing focus on primary health care approaches. The theme is complemented by two national workshops which will immediately precede the CST, **"Making the Links: Primary Health Care and Telehealth,"** and **"Connecting Communities for Better Health: National First Nations and Inuit Telehealth Summit 2005."** Outcomes from these workshops will be presented during the plenary sessions.

As in other years, the conference will be an opportunity for learning, sharing and networking. Broadcaster Tod Maffin will set the stage with his Keynote Address, **"This Won't Hurt Much: How Mediblogs and Lawn Bowling Will Change Telehealth."** In addition to the plenary sessions which focus on **Telehealth and Change**, **Aboriginal Telehealth Initiatives**, and **Primary Health Care and Telehealth,** we anticipate sixty concurrent oral presentations and over twenty posters from colleagues across the country highlighting telehealth success stories, challenges, research and new innovations. The Breakfast Roundtables offer a wide range of topics as do the Workshops.

The Local Organizing Committee look forward to welcoming you to Manitoba and have arranged a variety of local entertainment. After the welcome reception, delegates may take a tour of the local **Fort Garry Micro-Brewery** that will include a beer tasting reception and light snack. The Gala Dinner will include entertainment from two local groups; the **Asham Stompers** perform traditional Metis dancing and the **Walking Wolf Dancers** perform traditional Aboriginal dancing. Following the Gala, the Historic Forks Market has two venues reserved for CST delgates providing live local entertainment, **Daniel Koulack and the Knappen Street Allstar Band**, and the **The Joel Kwiatkowski Trio**.

We would like to acknowledge the CST 2005 Local Organizing Committee's two past Chairs, Robert Vigneault and Dr. Sarah Muttitt both of whom contributed to the planning and development of this conference along with the local team: Co-Chair - Cathy Van Nest, Liz Adair, Mike Heise, and Lise Pinsonneault. Thanks is also extended to the National CST Organization for their support.

Enjoy your time in Winnipeg! Whether this is your first CST or your eighth, we hope that you come away energized with new ideas and enthusiasm for using telehealth and other information communication technologies to support and improve health care services.

Liz Loewen, Chair, CST 2005 Local Organizing Committee

Winnipeg Regional Health Authority
Caring for Health

Office régional de la santé de Winnipeg
À l'écoute de notre santé

MBTelehealth

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GENERAL INFORMATION

Admission Policies
Name badges are required to gain access to the scientific sessions and the exhibit hall. A proper name badge or ticket must be presented to gain access to all social events. **Badges must be worn at all times.**

Registration Desk
The Registration Desk is open the following hours:

Saturday, September 24	1500-1800
Sunday, September 25	0800-1800
Monday, September 26	0700-1700
Tuesday, September 27	0730-1400

Exhibit Hall
The Exhibit Hall is located on the seventh floor of the Fort Garry Hotel in the Crystal Ballroom. Exhibits will be on display during the following hours:

Sunday, September 25	1800-2000
Monday, September 26	0730-1830
Tuesday, September 27	0730-1400

The Canadian Society of Telehealth is very grateful to our industry partners who have supported this year's conference through exhibiting. Please take time to visit our exhibitors.

Internet Café
The Internet Café is located on the Lower Level of the Fort Garry Hotel in Room D. The Internet Café will be open during the following hours:

Sunday, September 25	0700-1700
Monday, September 26	0700-1700
Tuesday, September 27	0700-1400

Enter to Win a Free CST Membership!
Please submit your evaluation form (at the back of this book) to the Registration Desk. All conference participants who submit evaluations forms will be entered into a draw to win a one-year membership (new membership or renewal) with the Canadian Society of Telehealth. Prize value varies with membership status. Not redeemable for cash.

For more information on CST memberships, visit our website at www.cst-sct.org.

Social Activities
It's not too late! If you missed signing up for any social activities, you don't have to miss out on the fun! Please refer to the social program page for a complete list of social activities. Inquire at the registration desk for availability.

CME Credit
This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification program of The Royal College of Physicians and Surgeons of Canada. This program has been reviewed for accreditation by Continuing Medical Education, University of Manitoba.

SOCIAL PROGRAM

		Room
Saturday, September 24		
1700-1800	National Telehealth Coordinators Special Interest Group (NTC-SIG) Reception	Gateway
1800	Pub Crawl *All delegates are welcome to participate – wear your red-checked wristband.*	Offsite
Sunday, September 25		
1800-2000	Welcome Reception	Crystal Ballroom
1930-2230	Fort Garry Brewery Tour (Optional - Pre-Registration Required) *Return transportation from the Fort Garry Hotel Lobby is provided. Tickets required – see Registration Desk for details.*	Offsite
Monday, September 26		
1800-1900	Gala Dinner Reception	Concert Ballroom
1900-2030	Gala Dinner and Awards Presentations *Exquisite Manitoba Cuisine will be presented.*	Concert Ballroom
2030-2400	Entertainment & Relaxation at The Forks *Located directly across Main Street, a ten minute walk from Fort Garry Hotel. All delegates are welcome to attend – wear your purple wristband.*	Offsite

BUSINESS MEETINGS

		Room
Saturday, September 24		
1300-1700	National Telehealth Coordinators Special Interest Group (NTC-SIG) Annual General Meeting & Symposium	Gateway
Sunday, September 25		
1000-1130	CST Industry Committee	Tache
1130-1300	2005-2006 Conference Planning Committees Joint Meeting	Salon C
1300-1400	CST Research Committee	Salon AB
1300-1400	CST Education Committee	Tache
1300-1400	CST Policy and Standards Committee	Concert Ballroom
1500-1600	CST Old Board of Directors	Tache
1600-1800	CST Annual General Meeting	Concert Ballroom
1800-1830	CST New Board of Directors	Concert Ballroom
Tuesday, September 27		
0700-0815	Industry Breakfast	Club Room
1200-1300	Awards Jury	See Registration Desk

CST COMMITTEES

CST Board of Directors, 2004-2005

Richard Scott, Chair	rescott@ucalgary.ca
Valerie Ashworth	vashworth@phsa.ca
Ed Brown	ebrown@northnetwork.com
Kathy Crone	kcrone@careconnect.org
Bob Filler	robert.filler@sympatico.ca
John Finley	john.finley@iwk.nshealth.ca
Jean-Paul Fortin	jpfortin@msp.ulaval.ca
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Jay Lambert	jlambert@fnchc.ca
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Sarah Muttitt	smuttitt@infoway-inforoute.ca
Laurie Poole	lpoole@clinidata.com
Shirlee Sharkey	ssharkey@saintelizabeth.com
Roberta Hildebrand, Executive Director	director@cst-sct.org

Executive Committee, 2004-2005

Richard Scott, President	rescott@ucalgary.ca
Chris-Anne Ingram, Vice President	chrisanne.ingram@iwk.nshealth.ca
Ed Brown, Secretary	ebrown@northnetwork.com
Sarah Muttitt, Treasurer	smuttitt@infoway-inforoute.ca
Penny Jennett, Past President	jennett@ucalgary.ca
Roberta Hildebrand, Executive Director	director@cst-sct.org

2004-2005 Chairs of Committees and Special Interest Groups

Awards Committee
Laurie Poole — lpoole@clinidata.com

Communications Committee
Robert Filler — robert.filler@sympatico.ca

Education Committee
Carol Flewelling — cflewelling@northnetwork.com

Industry Committee
Mark VanderWerf — mark@amdtelemedicine.com

International Committee
Chris-Anne Ingram — chrisanne.ingram@iwk.nshealth.ca

Membership Committee
Sandra MacDonald-Rencz — Sandra_MacDonald-Rencz@hc-sc.gc.ca

Nominating Committee
Ed Brown — ebrown@northnetwork.com

Policy & Standards Committee
Patricia McLean — pmclean@cnps.ca

Research Committee
John C. Hogenbirk — jhogenbirk@laurentian.ca

National Telehealth Coordinators Special Interest Group (NTC-SIG)
Dan Reinbold — Dan.Reinbold@pchr.ca

Paediatric Special Interest Group (Paeds SIG)
Joanne Reid — joanne.reid@sickkids.ca

CST 2005 CONFERENCE COMMITTEES

National Scientific Program Committee

Richard Scott, Chair
Roberta Hildebrand, Co-Chair
Liz Loewen, Co-Chair
Carol Flewelling
Jean Paul Fortin
John Hogenbirk
ChrisAnne Ingram
Laurie Poole
Robert Vigneault, Sarah Muttitt, Past Co-Chairs

Local Organizing Committee

Liz Loewen, Chair
Cathy Van Nest, Co-Chair
Liz Adair
Mike T. Heise
Roberta Hildebrand
Lise Pinsonneault
Richard Scott
Robert Vigneault, Sarah Muttitt, Past Chairs

Contact Us

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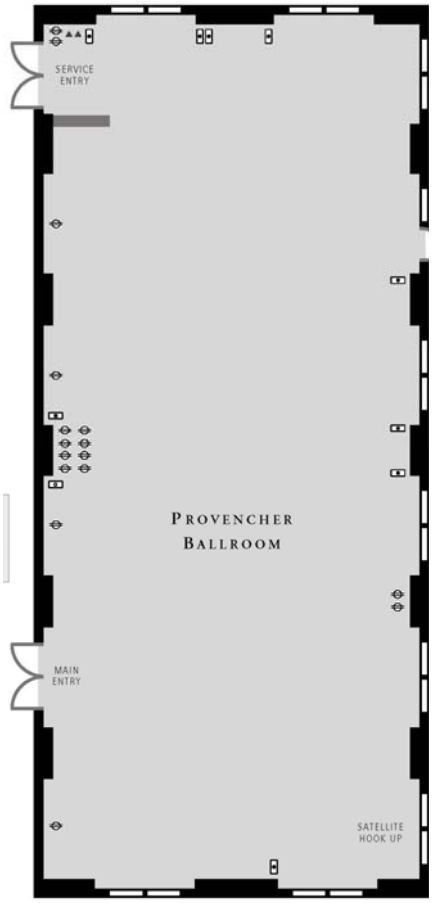
www.cst-sct.org

HOTEL FLOOR PLANS

Lower Level

Main Level



Second Floor

Seventh Floor

EXHIBITS

The Exhibit Hall is located on the seventh floor of the Fort Garry Hotel in the Crystal Ballroom. Exhibits will be on display during the following hours:

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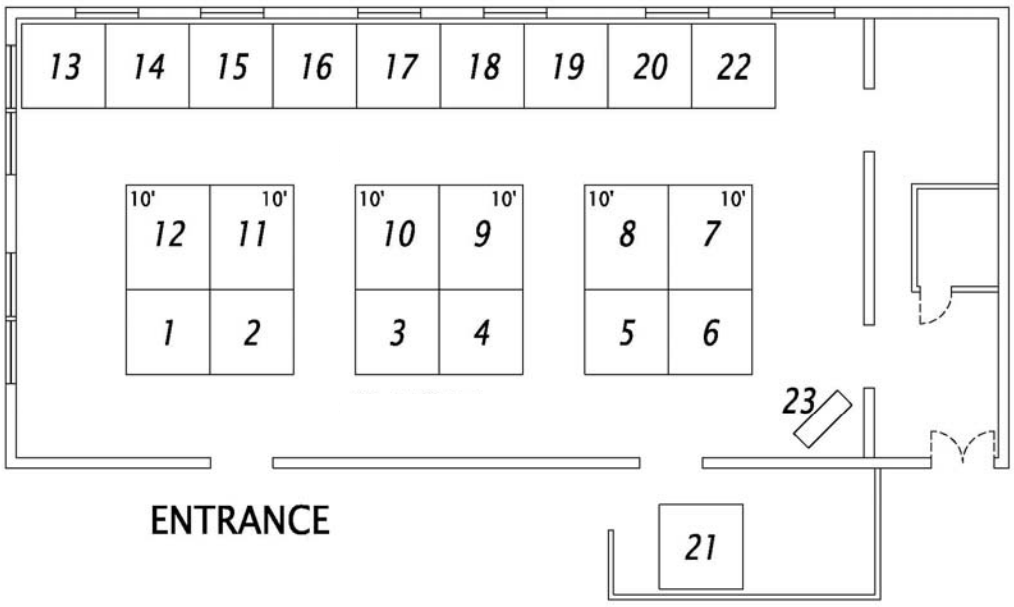
Tuesday, September 27	0730-1400



Booth	
1 & 2	Tandberg Canada Inc.
3	Honewell HomeMed
4	Virtual Healthcare Solutions Inc.
5 & 6	Sony Canada Ltd.
7	PHD Medical
8	Qanda Networks
9	Codian Inc
10	Wolfvision Canada Inc.
11	E-Ceptionist Inc.
12	Clinidat Corporation

Booth	
13	Télémédic Inc.
14 & 15	Microsoft Canada Co.
16	Technologies New IT Inc.
17	March Networks
18	Canada Health Infoway
19	Aethra Inc.
20	AMD Telemedicine
21	MTS Allstream
22	Telus
23	Royal Society of Medicine Press

EXHIBITORS

AETHRA INC. **BOOTH 19**

Established in 1972, Aethra is an Italian-based, multi-national company that excels in the development and manufacturing of high quality video CODEC technologies, video conferencing systems and telemedicine solutions. Aethra employs over 100 engineers in its R&D department and is widely regarded as the leader in video technology.

AMD TELEMEDICINE **BOOTH 20**

AMD Telemedicine is the leading provider of medical devices for use in Telemedicine. AMD also provides a full line of homecare monitoring devices through its Care Companion product line.

CANADA HEALTH INFOWAY **BOOTH 18**

Canada Health Infoway Inc. invests with public sector partners across Canada to implement and reuse compatible health information systems that support a safer, more efficient healthcare system. *Infoway* is an independent, not-for-profit organization whose Members are Canada's 14 federal, provincial and territorial Deputy Ministers of Health.

CLINIDATA **BOOTH 12**

Clinidata is Canada's leading provider of health information and advice delivered through six telehealth centres in Ontario and New Brunswick. Clinidata's clinical team provides information on symptom management, chronic illness, smoking cessation, and public health.

CODIAN **BOOTH 9**

Codian is changing the face of videoconferencing, providing rich media conferencing while simplifying the user experience. A manufacturer of video infrastructure for IP and ISDN networks, Codian provides the premiere solution for enterprise, education and government applications by integrating the MCU, firewall traversal, conference recording, streaming, gateways, and protocol converters.

E-CEPTIONIST INC. **BOOTH 11**

E-Ceptionist® is dedicated to improving the efficiency and reducing the costs of healthcare organizations by way of its E-Ceptionist e-health platform, its state-of-the-art EPR, and its operating modules: Case Manager, Disease Manager, Schedule Manager, Telehealth Manager and Practice Manager. E-Ceptionist is a Web-based solution that gives organizations the ability to seamlessly and securely manage the healthcare process over a wide area network."

HONEYWELL HOMMED® **BOOTH 3**

Honeywell HomMed® concentrates its expertise on remote patient monitoring. Monitors and software are FDA Class II medical devices. Vital signs are collected from the monitors and medical peripherals.
Using voice commands and light cues the MedPartner™ Medication Reminder (pending FDA 510 K clearance) is an innovative solution to medication non-compliance. Website: http://www.hommed.com

MARCH NETWORKS **BOOTH 17**

March Healthcare delivers innovative eHealth solutions that enable healthcare providers to streamline delivery processes, benefit from resource efficiencies and increase quality patient care. The company's scalable telehealth applications combine wired and wireless technologies to support a range of remote monitoring and health maintenance solutions. March Healthcare is ISO 13485:2003 / 9001:2000 certified and is wholly-owned by March Networks. www.marchhealthcare.com

MICROSOFT CANADA CO. **BOOTHS 14 & 15**

> Solutions for Healthcare

Microsoft and technology partners support the efforts of healthcare agencies to create more responsive, effective services and are committed to helping healthcare providers realize their potential through innovations that enhance productivity, are simple by design, and deliver greater value to the patients and community members they serve.

MTS ALLSTREAM **BOOTH 21**

Advise…Build…Manage… Telehealth Solutions

MTS Allstream's vConference & Multimedia Solutions Group has more than a decade of national experience in project management, engineering, system integration, installation and support. MTS Allstream has designed and installed systems for a variety of medical, educational, justice and corporate applications including IP-based videoconference bridging for multi-users. Health care customers include the Ontario Ministries of Health Long Term Care and Community and Social Services, and the University of Northern British Columbia. MTS Allstream presently is in a Vendor of Record Relationship with Winnipeg Regional Health Authority - MB Telehealth, the Saskatchewan Association of Health Organizations and the Ontario Government, which is presently being renewed.

PHD MEDICAL **BOOTH 7**

The PHD Medical Televisit 100 system is a web based telemedicine platform that allows healthcare professionals to perform live and interactive medical examinations on patients in remote locations.

QANDA NETWORKS **BOOTH 8**

Network Security using laptops, whiteboard and projector plus brochures.

ROYAL SOCIETY OF MEDICINE PRESS **BOOTH 23**

The Royal Society of Medicine Press is the publisher of the *Journal of Telemedicine and Telecare*, now widely regarded as the leading journal in its field. We also have a comprehensive range of books to help the telemedicine practitioner. Visit the RSM Press stand for discounts on all our publications.

SONY CANADA LTD. **BOOTH 5 & 6**

Sony of Canada Ltd. will be exhibiting the latest in Videoconferencing technology with the PCS-TL50 (20" display) executive all in one unit as well as the new PCS-TL30, (17" display) executive all in one unit. Other medical hardware from Sony will also be on display. This state of the art technology will allow hospitals, doctors and patients to communicate more efficiently in the ever changing world of healthcare. Please visit the Sony booth located 5/6 during the Canadian Society of Telehealth Show.

TANDBERG **BOOTHS 1 & 2**

TANDBERG is a leading global provider of visual communication products and services. The Company has dual headquarters in New York and Norway. TANDBERG designs, develops and markets systems and software for video, voice and data. The Company provides sales, support and value-added services in more than 90 countries worldwide. TANDBERG trades publicly on the Oslo Stock Exchange under the ticker TAA.OL. Please visit www.tandberg.net for more information. TANDBERG is a registered trademark of TANDBERG in the U.S. and select other countries.

TECHNOLOGIES NEW IT **BOOTH 16**

New IT deploys application specialized for the healthcare sector. With its secure bidirectional electronic link, the Intelligent Distance Patient Monitoring (IDPM) enables health professionals to rigorously and systematically monitor high risk patients who wish to remain at home. IDPM achieves many goals: care continuity, patient empowerment and efficiency. It also facilitates service integration by sharing patient information within care giving teams.

TÉLÉMÉDIC INC. **BOOTH 13**

Telémédic is a Canadian leader in the conception, production and delivery of innovative telemetric systems for the acquisition of vital signs and telemonitoring services that promote the autonomy at home of the patient.

Our portable unit, which is comparable in size to a watch, and the interface card automatically gets patients vital signs to the health professional without any human intervention. Full internet/phone service module ideal for distance monitoring, personalized services, sharable patients files, reports, Visio conferencing, medical protocols….

TELUS **BOOTH 22**

TELUS is the largest telecommunications company in Western Canada and the second largest in the country, with 7.9 billion of annual revenue, 4.7 million network access lines and 4.1 million wireless customers. The company provides customers with a full range of telecommunications products and services including data, voice and wireless services across Canada, utilizing next generation Internet-based technologies.

VIRTUAL HEALTHCARE SOLUTIONS **BOOTH 4**

VHS is an award winning Canadian Corporation providing technology to serve communities and medical practitioners in Canada and Internationally. We are a consulting firm that facilitates the application of cutting edge healthcare, education, communications and information technologies to a broad spectrum of clients. We excel at providing solutions to developing, remote/rural and isolated communities as well as industrial and commercial applications. Virtual Healthcare Solutions has developed a unique understanding of these environments and the challenges of implementing today's technology to resolve the basic life necessities for health, educational and communication services to these communities. We believe, even though technology, geography and conditions change, our direction remains clear; we pride ourselves on being a facilitator for an improved lifestyle. We embrace technology to make lives better.
We are pleased to provide to you information on some of our services at the 2005 CST conference and look forward to meeting you at our booth.

WOLFVISION CANADA INC. **BOOTH 10**

Wolfvision manufactures high-end document cameras (visualizers) for use in telemedicine. Features include: 1-CCD or 3-CCD, progressive scan, 30 FPS, image store, synchronized light field and more.

INVITED SPEAKERS

Ed Brown
Executive Director, NORTH Network

Ernie Dal Grande
First Nations and Inuit Health Branch, Health Canada

The Honorable Gary Doer
Premier of Manitoba

José François
MD CCFP, Family Physician- Centre de santé St-Boniface, Education Director - Bilingual Family Medicine Residency Program - University of Manitoba

Valerie Gideon
Health and Social Development, Director, Assembly of First Nations

Kevin Houghton
Program Manager, KO Telehealth

Liz Loewen
Director, MBTelehealth, Winnipeg Regional Health Authority

Tod Maffin
CBC Radio

Mel MacLean
Health Business Analyst, Strategic Partnerships, Health Assessment and Surveillance Directorate, Health Canada Alberta Region, First Nations and Inuit Health Branch

Marie O'Neill
A/Director, Rural & Northern Regional Support Services, Manitoba Health

Brian Postl
President and Chief Executive Officer, Winnipeg Regional Health Authority

Ron Riesenbach
Chief Information Officer, NORTH Network

Richard E. Scott
Global e-Health Research and Training Program, Health Telematics Unit, Department of Community Health Sciences, Faculty of Medicine, University of Calgary

Sharlene Stayberg
Telehealth Director, Alberta Health and Wellness

Robert Vigneault
Director - Telehealth Program, Canada Health Infoway

Donna Williams
Regional Telehealth Coordinator, KO Telehealth

PROGRAM OVERVIEW

	Saturday September 24	Sunday September 25	Monday September 26	Tuesday September 27
Breakfast			Breakfast Roundtables	Industry Breakfast
Morning		Workshops: W1, W2, W3/W4	Opening Remarks and Keynote Address Panel Session #1	Concurrent Sessions #6-#11 Poster Sessions P1-P3
Lunch			Lunch in Exhibit Hall	Lunch in Exhibit Hall
Afternoon	National Telehealth Coordinators Special Interest Group (NTC-SIG) Annual General Meeting and Symposium	Workshops: W5/W6/W7, W8/W9/W10 CST Annual General Meeting	Concurrent Sessions #1-#5 Panel Session #2	CST President's Address Panel Session #3 Awards for Podium Presentations and Posters Closing Ceremonies
Evening	NTC-SIG Reception Pub Crawl	Welcome Reception Fort Garry Microbrewery Tour	Reception and Gala Dinner CST Awards Presentations After Dinner at The Forks	

Registration Desk hours:

Saturday, September 24	1500-1800
Sunday, September 25	0800-1800
Monday, September 26	0700-1700
Tuesday, September 27	0730-1400

Exhibits and Posters on Display:

Sunday, September 25	1800-2000
Monday, September 26	0730-1830
Tuesday, September 27	0730-1400

PODIUM AND POSTER PRESENTATION SUMMARY

CONCURRENT PODIUM SESSIONS

See pages 61-82 for abstracts

Session 1: e-Learning-1
Oral Presentations: 1.01-1.06
Monday, September 26, 2005, 1330-1500
Room: Gateway

Session 2: Impact of Telehealth on Users-1
Oral Presentations: 2.01-2.06
Monday, September 26, 2005, 1330-1500
Room: La Verendrye

Session 3: Research and Evaluation-1
Oral Presentations: 3.01-3.06
Monday, September 26, 2005, 1330-1500
Room: Salon AB

Session 4: Sustainability and Integration-1
Oral Presentations: 4.01-4.06
Monday, September 26, 2005, 1330-1500
Room: Club Room

Session 5: Homecare-1
Oral Presentations: 5.01-5.06
Monday, September 26, 2005, 1330-1500
Room: Club Room

Session 6: Policy Issues
Oral Presentations: 6.01-6.06
Tuesday, September 27, 2005, 0830-1000
Room: Gateway

Session 7: Research and Evaluation-2
Oral Presentations: 7.01-7.06
Tuesday, September 27, 2005, 0830-1000
Room: La Verendrye

Session 8: Sustainability and Integration-2
Oral Presentations: 8.01-8.06
Tuesday, September 27, 2005, 0830-1000
Room: Salon AB

Session 9: e-Learning-2
Oral Presentations: 9.01-9.06
Tuesday, September 27, 2005, 0830-1000
Room: Tache

Session 10: Homecare-2 & Impact of Telehealth on Users-2
Oral Presentations: 10.01-10.06
Tuesday, September 27, 2005, 0830-1000
Room: Provencher

Session 11: Underserviced Communities
Oral Presentations: 11.01-11.06
Tuesday, September 27, 2005, 1030-1200
Room: Gateway

POSTER PRESENTATIONS

See pages 83-91 for abstracts

Session P1: Impact of Telehealth on Users & Homecare
Posters P1.01-P1.09
Posters on Display throughout conference
Oral Overviews: Tuesday, September 27, 2005, 1030-1200
Room: La Verendrye

Session P2: Sustainability and Integration
Posters P2.01-P2.09
Posters on Display throughout conference
Oral Overviews: Tuesday, September 27, 2005, 1030-1200
Room: Salon AB

Session P3: e-Learning & Underserviced Communities
Posters P3.01-P2.10
Posters on Display throughout conference
Oral Overviews: Tuesday, September 27, 2005, 1030-1200
Room: Tache

SUNDAY, SEPTEMBER 25

Time	*Session*	*Room*
0730-1800	Registration	
1800-2000	Exhibits and Poster Displays	Crystal Ballroom
0800-1600	CST Committee Meetings	See schedule
0900-1200	Concurrent Workshops	

	Room: La Verendrye	Room: Gateway	Room: Concert Ballroom
0900	Workshop W1	Workshop W2	Workshop W3
1015			
1045			Workshop W4
1200			

1300-1600	Concurrent Workshops	

	Room: La Verendrye	Room: Gateway
1300	Workshop W5	Workshop W8
1345		
1400	Workshop W6	Workshop W9
1445		
1500	Workshop W7	Workshop W10
1545		

1600-1800	CST Annual General Meeting	Concert Ballroom
1800-2000	Welcome Reception	Crystal Ballroom
1930-2230	Fort Garry Microbrewery Tour *(optional- tickets available at Registration Desk)*	Offsite

WORKSHOPS
0900-1200

Workshop W1: Blackberry - Effective Use and Super User Tips
0900-1200 **Room: La Verendrye**

Join Research in Motion (RIM) for an introduction to Blackberry devices. The Blackberry goes far beyond email, and RIM experts will take participants through a brief introduction of the Blackberry and its benefits. The workshop will take an in depth look at Blackberry Usage, Tips, Tricks, and Short Cuts ensuring that your Blackberry experience will be more enjoyable and productive. RIM will also highlight various Blackberry third party applications that may help stream line your organizations key business process. This workshop will benefit both new and experienced users alike. For those thinking of integrating wireless handheld devices into your organization, this will be a great opportunity to evaluate the available solutions or to network with others who already have.

Sponsored by Telus Mobility

WORKSHOPS
0900-1200

Workshop W2: Participatory Action Research
0900-1200 **Room: Gateway**

Facilitators: ***Sandra Jarvis-Selinger***, University of British Columbia
Andora Jackson, University of Manitoba
John Hogenbirk, Centre for Rural and Northern Health Research
Helen Novak Lauscher, University of British Columbia

Background: Participatory Action Research (PAR) emerged in the 1970s as an evaluation approach that seeks and values input from stakeholders, with an emphasis on input from those community members who are impacted directly by the program. PAR is one of a suite of approaches that is broadly called Action Research or Participatory Evaluation. PAR employs a variety of methodologies and research tools. However, the guiding principle is that community members have a major role in setting the research agenda, engaging in research processes, and deciding upon the uses of data and research outcomes.

Objectives: Participants in this workshop will:
- Learn the history, theory and key principles of the PAR approach;
- Learn how the PAR approach can contribute to research and evaluation in telehealth contexts;
- Understand PAR as a research paradigm in which diverse research tools can be applied;
- Examine the theoretical and practical "pros" and "cons" of the PAR approach;
- Share their experiences of participatory, collaborative community research;
- Meet and network with others who have engaged in PAR research; and
- Discuss strategies for incorporating principles of PAR in their research.

Outline/Agenda:
- Introduction of workshop facilitators and participants (10 minutes)
- Background: Provide the history, theoretical background and justification for PAR. Present and discuss the key principles of the PAR approach. (50 minutes). Explain validity of approach and show why it might be the best option in certain situations.
- Nutrition break (15 minutes)
- PAR in Action: Outline the general approach and processes of PAR; provide examples of methods/methodology and illustrate with specific tools and case examples (e.g., PAR projects in various stages of development, implementation, etc). (45 min.)
- Discussion: Facilitate an interaction discussion with stakeholders (researchers, administrators, community members) who have engaged in PAR. Discuss the theoretical and practical pros and cons. Discuss strategies for incorporating PAR principles in research as well as designing research initiatives in the PAR tradition. (60 min.)

Intended Audience: varied – students, researchers, administrators, managers, policy and decision-makers. This workshop will be of use in evaluation/research projects in which a main goal is to directly and actively involve those who use and/or administer the telehealth service with the intent to build research/evaluation capacity and/or to effect change in the way the service is delivered or organized.

Follow-up: evaluation of workshop, networking and collaborative opportunities.

Sandra Jarvis-Selinger holds a PhD in Education and Counseling Psychology and Special Education from the University of British Columbia. She is the Director of Research at UBC CME, and she serves on the BC Telehealth Steering Committee. Dr. Jarvis-Selinger's academic and research interests include the incorporation of human learning, development and instructional design. Specifically, her dissertation focused on how people undergo a professional identity transformation through formal education programs. Her current position as the Director of Research at UBC CME allows the opportunity to apply these research skills and pedagogical knowledge to continuing medical education and technology enabled learning in the health sciences. The research projects currently under Dr. Jarvis-Selinger's direction include: physician's attitudes toward internet based continuing professional development; just-in-time clinical consultation via videoconferencing for rural physicians (with trauma and emergency patients); the use of PDA for medical trainee education in clinical clerkships; and the use of videoconferencing for delivering continuing medical and continuing nursing education for rural health professionals.
John C. Hogenbirk, MSc, is a senior researcher with the Centre for Rural and Northern Health Research (CRaNHR), with eight years of research experience in telehealth evaluation and research. John currently serves as the Chair of the Research Committee of the Canadian Society of Telehealth. John is a member of an advisory panel on Quality Indicators for Clinical Services Delivery Using Telemedicine (chaired by Rob Williams, MD, NORTH Network and Patrice Lindsay, RN, PhD, Institute for Clinical Evaluative Sciences). He has been involved in all of CRaNHR_s studies on telehealth. He has published peer-reviewed papers on telehealth policy and service utilization issues.

Sponsored by CST Research Committee

WORKSHOPS
0900-1200

Workshops W3/W4: Accelerating Your Telehealth Projects and Programs through Knowledge
W3: 0900-1015; W4: 1045-1200 **Room: Concert Ballroom**

(W3 and W4 are the same workshop offered twice)

Moderators: ***Robert Vigneault***, Infoway Telehealth Program Director
Krista Balenko, Infoway Project Manager

What This Session Is About

During this free pre-conference workshop, stakeholders will have the opportunity to:

- Discuss experiences and tools in an information exchange as we examine the Catalyst for Change, and identify the critical elements for successful Telehealth projects
- See an interactive demonstration of the Telehealth Toolkit and sample tools that were created by NORTH Network and MBTelehealth
- Learn more about Infoway's Telehealth Program and our services

Who Should Attend?

This facilitated session is aimed at all Telehealth program/project managers and healthcare providers who:

- Are considering implementing additional telehealth solutions
- Are in the midst of implementing telehealth solutions and interested to see what others are doing or have done
- Are interested in learning more about the Infoway Telehealth program

Sponsored by Canada Health Infoway

WORKSHOPS
1300-1600

Workshops W5/W6/W7: New Communications Capabilities Enable a New Standard for Remote Healthcare
W5: 1300-1345; W6: 1400-1445; W7: 1500-1545 **Room: La Verendrye**

(W5, W6, and W7 are the same workshop offered in three time slots)

Facilitators: ***Jeff Fitchett***, Nortel

To deliver optimal healthcare services - whether in a hospital, in the home, or on a roadside - clinicians require dependable, capable access to accurate information, health records and colleagues. The emergence of new multimedia communications capabilities together with higher bandwidth cellular services and clinical grade infrastructures will enable clinicians to access all the necessary resources and expertise to deliver optimal care and services wherever they are.

This session will look at telehealth applications that leverage multimedia communications capabilities (voice, video, IM, presence) and new cellular services, enabling mobile healthcare clinicians to collaborate with colleagues as effectively as if they were collocated. The session will also describe how new high performance cellular services enable these new offers while ensuring the dependability, security and privacy which is mandatory for interacting with health record information.

Jeff Fitchett is an engineer in the Chief Research Office at Nortel. He has been with the company since 1998, specializing in advanced networks for healthcare applications over the past 2 years. He has patents issued and pending in the fields of both advanced healthcare and high capacity networks. Mr. Fitchett has served on numerous international review committees including those for ICC, Globecom, and Opticomm. He received his M.Sc. degree from the University of Manitoba, Canada in 1993, following 8 years in industry with a telecommunications service provider. Following that he planned national backbone networks for Stentor Incorporated where he influenced the architecture of CANARIE's CA*net, Canada's national research network. His current research interests include wireless and optical networks, medical networks, and image display and rendering.

Sponsored by Nortel

WORKSHOPS
1300-1600

Workshops W8/W9/W10: Technology Overcoming Distance…Case studies of innovative organizations and adopting new enablers
W8: 1300-1345; W9: 1400-1445; W10: 1500-1545 **Room: Gateway**

(W8, W9, and W10 are the same workshop offered in three time slots)

Presenters: ***David McFadyen***, ***Murray Gartner***, ***Ian Lancelotte***, MTS Allstream

Case Study – Technology supporting Northern Medical Program
Small, remote universities across Canada share a common constraint in their programming: a shortage of qualified staff to teach medical courses. Historically medical students had to leave their home communities to study in a larger centre – and many of them never came back. Yet, statistics show that 70% of doctors trained at a given school end up practicing where they trained. To stop the out-migration, the University of Northern British Columbia worked with MTS Allstream and implemented a unique technological solution. Students see, hear and actively participate in lectures and medical education occurring 100's of miles away. Learn about the challenges and the success of this implementation that allows universities to share limited resources and provide a renewed health alternative in rural and northern communities.

Case Study – Salem Home
In the digital age, the first step in using information technology to improve care is connectivity. Being connected to information can significantly improve the way staff provides patient care. In hospitals, personal care homes, and other medical facilities the way care is provided is evolving. Wireless LAN's (Local Area Networks) is bringing efficiency and accuracy to the bedside. Real-time access to electronic records, diagnostic imaging, charting, and scheduling are just some of the tools available to staff at the point-of-care. MTS Allstream implemented a wireless LAN solution for Salem Home in Winkler. Salem Home is the largest extended care facility in rural Manitoba, and through the use of this technology, has greatly improved access to patient information, and ultimately the level of care provided. Hear their experience and imagine the possibilities.

Case Study – Collaboration Suite
MTS Allstream has developed a secure and affordable solution for desktop-to-desktop collaboration, a viable alternative for smaller scale TeleHealth applications. Utilizing the latest developments within the common technology platforms of Microsoft XP and the Microsoft Office, Collaboration Suite provides a new alternative for desktop-to-desktop collaboration. Implemented by a prominent Alberta homebuilder, Collaboration Suite has connected the widespread members of their organization across the Internet to share documents and conduct video conferencing with minimal cost. You'll hear their story and how this new collaborative communication tool has brought 'the human touch back into the business'.

David McFadyen is the Manager vConference and Multimedia Solutions for MTS Allstream. For the past 27 years, David has been involved in numerous aspects of the Telecommunications sector, including Network Operations, Network Implementation, Marketing and Sales management for voice and data products. David specializes in the collaborative process for solving the remote communication needs of organizations. **Murray Gartner** manages MTS Allstream Provincial Data Network account for Data and Internet for Government, Health, and Education for Manitoba. Over the last 14 years, Murray has worked in the IT industry as network consultant, network architect, systems analyst, and systems engineer for a major global network hardware manufacturer. Murray holds several industry IT certifications including MCSE, HP, 3COM, Nortel, Citrix, and Mitel amongst others. **Ian Lancelotte** manages MTS Allstream Professional Services in Winnipeg. For the past 12 years, Ian has been involved in numerous aspects of the information technology sector, including consultancy management, project management and solution architecture. Ian was actively involved in developing the MTS Allstream's Collaboration Suite product and has published articles and presented case studies on Enterprise Application Integration and Collaboration Solutions.

Sponsored by MTS Allstream

MONDAY MORNING, SEPTEMBER 25

Time	*Session*	*Room*
0700-1700	Registration	
0800-1900	Exhibits and posters displays	Crystal Ballroom
0700-0815	Breakfast roundtables	Concert Ballroom
0830-0920	Opening Remarks and Keynote Address	Provencher Ballroom
0920-1000	Panel session #1 – Telehealth and Change	Provencher Ballroom
1000-1050	Nutrition Break	Crystal Ballroom
1050-1200	Panel Session #1 continues	Provencher Ballroom
1200-1330	Lunch, Exhibits and Poster Viewing	Crystal Ballroom

Continental Breakfast for all delegates
0730-0830
Crystal Ballroom & Foyer

Sponsored by Virtual Healthcare Solutions

BREAKFAST ROUNDTABLES
0700-0815

Concert Ballroom

R1 Are We Ready to Teach the "Veterans" to the "Nexters"? - Intergenerational Learning Preferences in the Workplace
Expert Facilitator: Trish Lundstrom, Continuing Professional Development Coordinator – Tele-Learning, Health Sciences North

Articles and books are being written describing characteristics, conflicts and similarities of learning associated with the generations of students involved in education in these times. (Zemke et al 1999, Raines 1997) These generations have been labelled Veterans (1922-1943), Baby Boomers (1943-1960), Generation X'ers (1960-1980) and Nexters (>1980). There are several growing trends related to education and health care: videoconferenced education opportunities are rapidly increasing and the range of age of learners is expanding from 20-70 years of age and older.

Discussing characteristics and preferences of today's learners will help Telehealth Coordinators to assist both presenters and participants to benefit most from the education they attend.

The question for discussion is "How can videoconferenced education accommodate the learning preferences of multiple generations of learners?" In this session, discussion will include:

- Characteristics of various generations
- Preferred learning environment and styles
- Dislikes about learning activities
- Characteristics of preferred education guide/facilitator
- Techniques to facilitate more effective videoconferenced education sessions considering multiple generations of learners.

Understanding the similarities and differences in learners of various ages can help the Telehealth Coordinator to facilitate successful videoconferenced education sessions for health care patients, staff, volunteers and community partners.

Trish Lundstrom is a nurse by trade and an adult educator by preference. She lives in Thunder Bay, Ontario at the top of Lake Superior and has worked in staff development 30 years, teaching and coordinating educational events. She has achieved a Masters of Distance Education and presently, is working in an academic health sciences center, facilitating videoconferences and e-learning opportunities for students and health care practitioners who live in Northwestern Ontario. "The most interesting part of my work is developing effective communication processes among everyone associated with health professional education across a large geographical area."

R2 Should Canada Utilize Telehealth as a Tool for Building International Relationships?
Expert Facilitator: Tim Patterson, Telehealth Coordinator, Baycrest Centre for Geriatric Medicine

Canada has an international reputation of healthcare expertise. The notion of utilizing a positive force such as healthcare to solidify and build external relationships is appealing to the Government of Canada. The Canadian International Scientific Exchange Program (CISEPO), a non-governmental organization from the University of Toronto Medical School is one example. Since 1995 CISEPO has brought together Israelis, Jordanians and Palestinians on an ongoing basis utilizing the high incidence of babies being born deaf as a common need. The language at the table becomes solution finding.

Telehealth now allows the players to participate on a more regular basis and allow for cross border educational programming without risk. Telehealth is a tool for ongoing Continuing Professional Development in the developing world. A brief history of a recent telehealth project will be presented and the reaction of Canadian Ministers will be shared. Telehealth can be used as a medium for building the Canadian Government's External Relations with other countries and providing a service to developing countries. The policy could fit into a Canadian way of providing assistance to society.. An example of this is the work of CISEPO, an NGO out of University of Toronto. Since 1995 CISEPO has brought together Israelis, Jordanians and Palestinians involving Middle Eastern Deans of Medicine, political representatives, students, professors with Canada as the third party organizer. CISEPO uses telehealth to augment its on the ground facilitation. The three Middle Eastern participants bond together and the capacity building leads to peacekeeping through relationships.

Using the CISEPO example of bringing together Israelis, Jordanians and Palestinians utilizing healthcare as a common need and language, it has been shown that previously combative groups can work together. CISEPO started with a common need that the incidence of babies been born deaf in the Middle East regardless whether the babies were Jews or Arabs, created a common need. The CISEPO program involves the School of Public Health, University of Toronto, Mount Sinai Hospital, Baycrest Centre for Geriatric Care and the Peter A. Silverman International Health

Centre as the primary members. The Government of Canada, a service club international organization and international NGOs are also interested in CISEPO.

Tim Patterson is a founding member of the CST and currently is the telehealth coordinator for Baycrest Centre for Geriatric Care, Telehealth Consultant for CISEPO and the Jordan University of Science and Technology (JUST). He has presented at a number of Conferences including the CME World Congress, the International Psychogeriatric Congress, the G8 Meetings of Telehealth and the Team Canada Trade Mission to Japan. As the CISEPO and JUST telehealth consultant Mr. Patterson has been working with Middle East and Canadian Medical Schools, international healthcare bodies, volunteer associations and Government of Canada Ministries. The purpose of the roundtable is to explore Canadian strengths in this area and to further develop its resources.

R4 Physician Credentialing and Hospital Privileges for the Purposes of Telehealth – What is being done and why?
Expert Facilitator: Dr. Pierre Soucie, Medical Director, CareConnect

Telehealth continues to gain popularity and momentum amongst physicians and other healthcare providers with benefits of reduced time and travel costs and improved access to specialty services and education. However policy and guidelines specifically related to physicians remains lacking. Of interest are the current practices and policies related to physician credentialing. Specifically, the requirement for physicians to become credentialed and/or obtain privileges at the referring telehealth site(s). Opinions on the necessity of such a policy/practice vary with unanswered questions as to when privileges would be required in order to practice telehealth; who should be responsible for ensuring this criteria is met; and what processes would facilitate meeting a credentialing requirement.

This roundtable will discuss the current approach to credentialing/hospital privileges for telehealth of the various telehealth networks in Canada. In addition results of a recent survey conducted by CareConnect on the credentialing practices (for telehealth) of healthcare institutions in Eastern Ontario will be shared.

Dr. Soucie obtained his medical degree from the University of Ottawa and has been a member of the department of Family Medicine as assistant professor since 1980. He practiced medicine in Northern Ontario in the mid sixties and then in Ottawa, Ontario for 18 years. Subsequently Dr. Soucie completed a Fellowship in the care of the elderly in Europe and then worked exclusively in this field as Chief of Staff and VP Medical Affairs at SCO Health Service between the years of 1980 and 2003. Dr. Soucie holds his Certification and Fellowship in Family Medicine, a Fellowship in Health Administration and is a certified health administrator from the College of Health Service Executives. He has a number of publications and multiple presentations in the field of geriatrics.

Dr. Soucie is currently the Medical Chief of Long Term Care at SCO Health Service, and the Medical Director of CareConnect, the telemedicine network for East and South East Ontario.

R5 Successful transition – how to adapt existing skills when adopting a new telehealth role, and supporting those in transition
Expert Facilitator: Maureen Wilkinson, Regional Telehealth Coordinator/Risk Manager, NORTH Network

This roundtable discussion will examine the phenomenon of transitioning into a new telehealth role. Specifically the discussion will focus on assessment of current skills, and adaptation of existing skills to function within a telehealth professional role. The table will examine the skill set that is required in telehealth, and the professional backgrounds that adapt well to the telemedicine dimension. The group will also examine what it is that telehealth leaders can do to support those transitioning into the new roles to be successful during the transition.

Specific points of discussion in this session will include;
i) Assessment of existing skill set
ii) Adaptation of existing skill set, &
iii) Development of a training plan to address the gaps

Maureen is currently the Central Ontario Regional Coordinator and Risk Manager for the NORTH Network. Prior to joining NORTH, Maureen has held several nursing and non-nursing leaderships roles, including Nurse Educator at The Hospital for Sick Children and Risk Manager at St. Joseph's Health Centre in Toronto.

Maureen is a "novice" in the telemedicine realm, having joined NORTH in September of 2004. Professional interests include the phenomenology of transitioning into a telehealth role, and in particular, enablers from the perspective of the telehealth professional. Maureen holds both a Bachelor of Science in Nursing and a Master of Education.

R6 Continuous quality improvement in healthcare e-learning: How to determine and act on what your audience is telling you

Expert Facilitator: Robert Glynn, Business Development Analyst, Office of Professional Development, Faculty of Medicine, Memorial University of Newfoundland

The concepts of quality assurance are well defined and well adopted in many sections of the North American economy. This roundtable discussion will seek to explore best practices in terms of assessing quality throughout the e-Learning development and delivery cycle and share stories on how telehealth organizations are managing quality.

Robert Glynn is a Business Development Analyst with the Office of Professional Development, Faculty of Medicine, Memorial University of Newfoundland. Robert is responsible for quality assurance for a number of office projects, including the MDcme.ca web portal. MDcme.ca is a consortium of 12 Canadian medical schools and is a leading provider of accredited online CME programs to the Canadian family physician community. Prior to joining the Office of Professional Development, Robert served as a Quality Assurance Analyst for a financial services IT provider. Robert's professional experience is supplemented by a strong educational background through completion of a Bachelor of Commerce degree, a Bachelor of Arts degree in Economics, and an advanced Diploma in Information Technology from Memorial University of Newfoundland.

R7 Telenursing Competencies: How to promote the development of telenurses from novice to experts

*Expert Facilitator:*Lois Scott, Executive Vice President & General Manager, Clinidata Corporation

What are the common and/or different competencies required for different telenursing applications, such as symptom management, health promotion, compliance management and chronic disease management? What is being done in Canada to identify, develop and evaluate these competencies and skills?

Recognized as one of Canada's leading telehealth experts, Lois Scott has pioneered many different concepts in emergency nursing and tele-nursing. She currently serves as a member of several national advisory boards and committees, including, Centennial College's TeleNursing Certification Program, the Canadian Council of Health Services Accreditation's Telehealth Standards; Canadian Society of Telehealth's Nomination and By-laws/Constitution Committees; and, the Telehealth Advisory Committees of several Canadian provinces. She is a past member of the Canadian Society of Telehealth's Board of Directors, the National Initiative for Telehealth Guidelines Advisory Committee and of several task forces which focused telehealth's integration with primary care reform and other relevant services.

R8 Strategic Planning for Telehealth

Expert Facilitator: Andrea Battcock, NL Telehealth Program Manager, Newfoundland and Labrador Centre for Health Information

In order to have government and health authorities accept telehealth, it must be implemented as a sustainable program. In many provinces, telehealth has not become an integrated service because little or no thought has been given to ensuring the continued success of the service, following the pilot project phase. Change is occurring, however, and many provinces are looking towards developing provincial telehealth strategies, with the hope and intent, that telehealth will integrate into healthcare delivery through careful planning and collaboration. The challenge, for some, lies in where to begin to develop a strategic plan for telehealth. The process used to plan for and develop the strategy that is perhaps just as important than the actual components of the plan.

The facilitator will guide discussion on planning for and developing a strategic plan. This session will be helpful not only to those tasked with developing a telehealth strategy, but for those involved in telehealth at any level, given that the development and implementation of a strategic plan, will have impact on current telehealth services/operations.

Andrea Battcock has a background in nursing, with 15 years service including acute care and management. She has been involved in the telehealth field since 1996 and has held various management roles, including Associate Director of TETRA (Telehealth and Educational Technology Resource Agency) at Memorial University, and Director, Program and Administration, NORTH Network in Ontario. Over the past few years, she has provided telehealth consulting services across the country in the areas of needs assessment, development of strategic and operational plans for telehealth programs, project management, workshop facilitation and environmental scans. Andrea is currently employed as the NL Telehealth Program Manager and has been hired to implement the NL Telehealth Strategic Plan.

R9 Home Monitoring - From Pilot to Program: Lessons Learned!
Expert Facilitator: Christine Struthers, Advance Practice Nurse – Cardiac e-Health, University of Ottawa Heart Institute

The Ottawa Heart Institute started home monitoring patients in 2001 as part of a pilot project which ended in 2003. Due to the success of the pilot project, a full program was launched with newer and more portable home monitoring equipment. The program is based on an "acute-on-chronic" model where patients who have an existent cardiac condition are monitored during periods of deterioration.

The main goal of the program is to decrease readmissions and emergency visits. Secondary objectives include the following: improving communication between specialists and primary care providers, providing educational support to promote self-care management, up titration of medication to target doses and improving access to specialized services. The roundtable discussion will include a review of the implementation and operation of the program and provide information related to equipment peripherals, policies and procedures, inclusion/exclusion criteria, care protocols, and marketing strategies. The role of the nurse in maintaining an electronic health record and the overall scope of practice will also be described. Challenges and limitations of home monitoring will be shared with the group. In conclusion, a brief description of a new initiative that started in June 2005 using home monitoring to reach rural minority groups will be given to highlight potential broad regional application.

Christine Struthers obtained her Masters in Nursing Science from the University of Ottawa in 2000. She held the position of Clinical Nurse Specialist Heart Failure/Transplantation at the University of Ottawa Heart Institute from 1989 to 2004. Recently as the clinical consultant she was involved in a randomized control trial of home monitored versus usual care of cardiac patients at high risk of readmission. In the past year she has accepted the new role of Advance Practice Nurse Cardiac Telehealth also at the Heart Institute. Her role involves using several technologies such as telehealth, interactive voice response and home monitoring to follow patients once discharged home.

R10 Engaging Capacity – First Nations Quality Improvement Programming
Expert Facilitator: Cheryl Klassen, Education Coordinator, KO Telehealth

Telehealth is an enabler in providing health education in First Nation communities. The ultimate goal of capacity building is improved health outcomes for community members. Therefore, capacity building must include all health staff positions. Questions to be addressed:

- What are the essential requirements for education programming in First Nation communities?
- How does one engage capacity in First Nation communities?
- Lessons Learned from the KOTH experience. (also available on handout)

Cheryl Klassen, RN, BScN, is the Education Coordinator for KO Telehealth. She has worked with a wide variety of First Nations health programs both in Northwestern Ontario and in Manitoba. The breadth and scope of Cheryl's practice has enabled her to understand the learning needs of staff across the health care spectrum. As a Community Health Nurse, Cheryl is familiar with the culture and practices as she lived in the isolated and remote First Nation communities. As KO Health Programs Assistant, Cheryl was part of the visionary team that planned the KO Telehealth program. Today Cheryl works at creating and implementing Canada's first telehealth education program designed to meet the learning needs of First Nations Health Staff using KOTH services.

R11 Technology and Change: A Telehealth Discussion
*Expert Facilitator:*Robert Vigneault, Telehealth Programm Director, Canada Health Infoway

In spite of the success of Change Management approaches/methodologies in ensuring the successful deployment of telehealth programs throughout Canada, there is a lack of understanding concerning the definition of Change Management and of recognition that most programs have either directly or indirectly developed approaches that clearly fall under the umbrella of Change Management - be they training, education, communications, project management or business process re-engineering initiatives. There is a need to clarify and articulate Change Management approaches for the purposes of ensuring the successful implementation of telehealth programs. This roundtable will discuss some of the barriers to change experienced within telehealth and some of the change management approaches utilized to ensure the successful implementation of telehealth solutions.

Robert Vigneault is currently the Telehealth Program Director with Canada Health Infoway. He is a graduate of the Masters of History Program at Carleton University where he researched both the development of Child Health Programs in Canada and the impact of Social Change on the Medical Profession. Robert joined MBTelehealth in January, 2005. Robert has worked at the senior level in both private and public healthcare with Health Canada (First Nations and Inuit Health Branch), SIS Business Alliance, IBM, TecKnowledge Healthcare Systems and Atlantic Blue Cross Care. Robert has been involved in the development and deployment of Document Management, Business Process Re-engineering, Systems Development, TeleHealth and e-Health solutions. He is a Certified Project Management Professional (PMP).

R12 Tele-Rehabilitation and Tertiary Rehabilitation Services in a Rural Province
Expert Facilitator: Dr. Ron Harris, Administrative Director, Stan Cassidy Centre for Rehabilitation

The focus of the Roundtable discussion will be a brief examination of:

- Issues in tertiary neurological rehabilitation service delivery such as:
  - Which professional services may benefit (or are benefiting from) tele-rehabilitation and how
  - What type of service works (e.g. consultation? intervention? education?)
  - What infrastructure and human resource problems or opportunities are there?
- Data collected from a pre-conference survey and working conference* in New Brunswick (to be held 22 –23 September, 2005)

This conference was designed to establish, from the perspective of rehabilitation professionals in each of the 7 regional Health Authorities that serve New Brunswick, the ways in which their provincial tertiary neurological centre could augment services using tele-rehabilitation. The conference was also designed with the provincial strategic directions for telehealth in mind and as a forerunner to developing the infrastructure for a provincial tele-rehabilitation network.

Ron Harris began work as an aviation electronics instructor in the Royal Air Force in England. He came to Canada in 1966 and worked as a training officer at Canadian Marconi Company. In 1974 he began graduate studies in clinical psychology at McGill University and received his PhD in 1981. From 1981 to 1997 Ron worked at the Douglas Hospital where, from 1983 to 1997 he was director of the Cognitive Behaviour Therapy Unit and held a professorial cross appointment in McGill's Department of Psychology. In November 1997 Ron began work as Paediatric Team Manager at Stan Cassidy Centre for Rehabilitation where, in November 1999, he took up his present duties as Administrative Director.

MONDAY MORNING PLENARY SESSIONS
0830-1200

Time	Session	Room
0830-0840	**Opening Remarks and Welcome by the President of CST** ***Richard E. Scott***, CST President	Provencher
0840-0850	**Welcome by Manitoba Government**	Provencher

The Honorable Gary Doer, Premier of Manitoba

In June, 2003, Gary Doer was re-elected to a second term as Manitoba Premier with an increased majority in the Provincial Legislature. He was first elected Premier in September, 1999 after serving as Leader of the Official Opposition since 1988 and an elected MLA since 1986. Under Premier Doer's leadership, Manitoba's innovative health care plan has focused on rebuilding the system through educating and hiring more nurses, doctors and health care professionals, moving ahead with strategic capital projects, and investing in diagnostic equipment and leading-edge technology to improve outcomes for patients. Premier Doer remains committed to investing in health care innovations in Manitoba such as telehealth, minimally invasive surgery and the Manitoba Institute for Patient Safety.

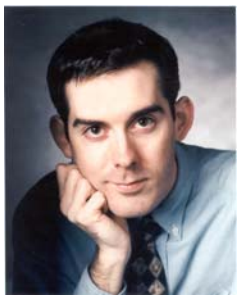
Dr. Brian Postl, President & CEO, Winnipeg Regional Health Authority

Dr. Brian Postl currently holds the position of President and Chief Executive Officer of the Winnipeg Regional Health Authority. Prior to this appointment he was the Vice-President, Clinical Services of the Winnipeg Hospital Authority (WHA) from September 1997 to December 1999. The WRHA comprises nine facilities and multiple community agencies, services and programs. Dr. Postl was appointed Federal Advisor for Wait Times by the Government of Canada on July 21st, 2005. His former appointments include Department Head of Pediatrics and Child Health for the University of Manitoba, St. Boniface General Hospital and Children's Hospital, Health Sciences Centre from September 1994 to January 1998, as well as Department Head of Community Health Sciences, University of Manitoba and Health Sciences Centre from 1988 to 1994, St. Boniface General Hospital in 1991, and Director, J.A. Hildes Northern Medical Unit from 1982 to 1994. University appointments are sustained as Professor within the Departments of Pediatrics and Community Health Sciences.

0850-0920	**Keynote Address: This Won't Hurt Much: How Mediblogs and Lawn Bowling Will Change Telehealth**	Provencher

Moderator: Richard Scott,President of the Canadian Society of Telehealth and Associate Professor, University of Calgary

Tod Maffin, CBC Radio



Tod Maffin is Canada's leading high-tech futurist, and one of the country's go-to commentators on the impact of technological change and innovation on the business and economic environment. He is also an outstanding speaker - one of North America's best. He is in fact a rare combination of someone with a deep and impressive store of technical knowledge, and the ability to translate that knowledge into presentations with the "wow" factor.

Tod's viewpoint on technology has widespread appeal. He has hosted a technology series on CBC Television's Canada Now, and a national technology column on CBC radio. Maffin also is the editor of The Future File, a web site and monthly email newsletter followed closely by more than 10,000 readers, including national business journalists and senior managers in the information technology field. His writing has appeared in The Wall Street Journal and the Vancouver Sun.

Sponsored by MBTelehealth, Winnipeg Regional Health Authority

0920-1200 **Panel Session #1: Telehealth and Change** Provencher

Moderator: Jean-Paul Fortin**,** Département de médecine sociale et preventive, Université Laval

0920-0940 **Presentation #1: Five telehealth technologies that are transforming healthcare**

Ron Riesenbach, Chief Information Officer, NORTH Network

Telehealth technologies and methodologies have been in use for over 50-years, however only in the last decade have they started to have a palpable impact on mainstream health care. Mounting evidence shows that these new tools and systems are providing tangible benefits to the patient, the caregivers and the health care system. The rate of adoption of telehealth into our health care system is accelerating due, in part, to the availability of low-cost and clinically effective technologies. This talk will briefly outline some of the noteworthy technologies that are making positive changes in our healthcare system.

Ron Riesenbach leads the technical services group at NORTH Network - Canada's busiest telehealth network. As part of NORTH's senior executive team, Ron directs the organizations technical staff engaged in service design, software development, network management and system support. Among his responsibilities is the development of business plans, technology strategy and funding frameworks for numerous state-of-the-art projects in the acute care and home care settings.
Ron has spent over 18 years as an information technology practitioner and executive, leading teams in academic research and commercial software development.Ron's academic accomplishments included a Masters of Business Administration, a Masters Degree in Electrical Engineering, as well as being a licensed Professional Engineer. An accomplished speaker in the field of information systems, Ron is a frequent presenter at telemedicine and ehealth conferences across North America.

0940-10:00 **Presentation #2: How will organizations adapt?**

Sharlene Stayberg, Telehealth Director, Alberta Health and Wellness

Sharlene Stayberg is Director, Telehealth Branch for Alberta Health & Wellness.
She is the Chair of the Western Health Information Collaborative (WHIC) Telehealth Leads Committee. Through this role she has recently undertaken to lead a multi-jurisdictional WHIC project funded by Canada Health Infoway related to Telehealth Change Management. Ms. Stayberg will be discussing this project in relation to the need for change and how organizations can adapt to enhance clinical telehealth services.

1000-1020 Nutrition Break Crystal Ballroom

1050-1110 **Presentation #3: What are the required policy incentives?** Provencher

Richard E. Scott, Global e-Health Research and Training Program, Health Telematics Unit, Department of Community Health Sciences, Faculty of Medicine, University of Calgary

As we move towards greater integration of Telehealth solutions into our existing healthcare systems, we must negotiate a meandering inter-jurisdictional path between and amongst administrative and political entities at many levels. The need for clear and widely adopted policy becomes essential. But does policy lead or follow; who's policy matters anyway; just what policy imperatives should we respond to; and how do we encourage policy adoption through incentives? If Telehealth is to be our hope for the future, then we must prioritize policy needs, find the correct incentives, and act now.

Dr. Richard Scott is an Associate Professor in the Global e-Health Research and Training Program, University of Calgary, a Fulbright New Century Scholar (2001-2003) and Harkness Associate (2004-2005) alumnus, and current President of the CST. Dr. Scott examines the role of e-health in the globalisation of healthcare, including aspects impacting the implementation and integration of e-health globally. He has over 19 years healthcare, research, and consulting experience. His research program is directed towards inter-jurisdictional e-health policy, outcomes evaluation, and environmental e-health.
Politics and technology have always been bedfellows, with their relationship revolving around policy. Somewhat intangible, policy decisions are an inevitable component of any system design whose presence – or absence - can they have a significant impact. Systems break down when there is a policy vacuum or overburden – witness emergency response at New Orleans, or the tragedy at Walkerton.

1110-1130 **Presentation #4: What's in it for the patient?**

Ed Brown, Executive Director, NORTH Network

This presentation will provide an overview of how patients are benefiting from telehealth today and into the future.

Dr. Ed Brown is an emergency physician and is the founder and Executive Director of the NORTH Network Telemedicine Program, which he has been developing since 1993. NORTH Network is one of the largest and most active telemedicine networks in North America. In 2004, NORTH Network received the Government of Ontario's "Diamond Award of Excellence" in the category of "Serving Ontario's Citizens Better." In April 2005, NORTH Network won the prestigious *"President's Award"* from the American Telemedicine Association (ATA), "in recognition of its contribution to developments and advancement of telemedicine worldwide". Dr. Brown currently sits as Secretary on the board of the Canadian Society of Telehealth and is Chair of the Nominating Committee. He is also a member of the Operational Space Medicine Advisory Panel of the Canadian Space Agency, Astronaut Office.
Dr. Brown was the recipient of the 2003 CANARIE I-WAY award for national leadership in the development of Canada's information highway, 'Application of Technology' category. He was also the 2003 winner of Canadian Healthcare Manager magazine's 'Who's Who in Healthcare Award' in the 'Technology' category.

1130-1150 **Panel discussion period**

1150-1200 **Summary and Wrap-up**

Jean-Paul Fortin**,** Département de médecine sociale et preventive, Université Laval

1200-1330 Lunch, Exhibits and Poster Viewing Crystal Ballroom

MONDAY AFTERNOON, SEPTEMBER 26

Time	*Session*	*Room*
0700-1700	Registration	
0800-1900	Exhibits and posters displays	Crystal Ballroom
1330-1500	Concurrent Podium Session #1 – e-Learning-1	Gateway
	Concurrent Podium Session #2 – Impact of telehealth on users-1	La Verendrye
	Concurrent Podium Session #3 – Research and evaluation-1	Salon AB
	Concurrent Podium Session #4 – Sustainability and integration-1	Club Room
	Concurrent Podium Session #5 – Homecare-1	Tache
1500-1540	Panel Session #2 – Aboriginal Telehealth Initiatives	Provencher
1540-1620	Nutrition Break	Crystal Ballroom
1620-1730	Panel Session #2 continues	Provencher
1800-1900	Gala Dinner Reception	Concert Ballroom
1900-2030	Gala Dinner and CST Awards Presentations	Concert Ballroom
2030	Entertainment & Relaxation at The Forks	Offsite

CONCURRENT PODIUM SESSION #1
1330-1500

e-Learning-1

Room: Gateway

Time	*Abstract Number, Title & Authors*
1330-1345	**1.01 THE 2004 INTERNATIONAL TELENURSING ROLE SURVEY** Grady J[1], Schlachta-Fairchild L[2]. *[1]Division of Nursing, Mount Aloysius College, Cresson, PA, USA; [2]iTelehealth, Inc., Frederick, MD, USA.*
1345-1400	**1.02 TRAINING AND LEARNING AT NORTH NETWORK: "GROWING" THE DISTANCE THROUGH E-LEARNING TECHNOLOGIES** Nickoloff A[1], Breslow L[1], Carter L[2]. *[1]NORTH Network, Toronto, ON. [2]NORTH Network, Sudbury, ON.*
1400-1415	**1.03 THE TELEMENTORING TOOL KIT: A RESOURCE FOR NURSE PRACTITIONERS IN RURAL AND REMOTE AREAS** Mackay G[1], Brown G[2], Carter L[2], Michaud J[2], Waite K[2] , Danner U[3], Butcher M[4], Blastorah M[5], Humbert J[6], Bajnok I[1]. *[1]Registered Nurses' Association of Ontario, Centre for Professional Nursing Excellence, Toronto, ON. [2]NORTH Network, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [3]NORWest Community Health Centre, Armstrong Satellite, Armstrong, ON. [4]Nurse Practitioners' Association of Ontario, Toronto, ON. [5]Markham Stouffville Hospital, Markham, ON. [6]University of Ottawa, Ottawa, ON.*
1415-1430	**1.04 IMPACT OF A VIDEOCONFERENCE-BASED BRAIN INJURY REHABILITATION CURRICULUM ON PARTICIPANTS' CLINICAL PRACTICE** Konrad M[1], Tian E[1], Gray S[2], Richards C[2]. *[1]Telemental Health Service, Alberta Mental Health Board, Ponoka, AB. [2]Brain Injury Rehabilitation Program, David Thompson Health Region, Red Deer, AB.*
1430-1445	**1.05 AN INNOVATIVE ONLINE PROGRAM TO FACILITATE HAND WASHING ADOPTION AND BEHAVIOURAL CHANGE IN NURSES IN A MAJOR URBAN HEALTH REGION** Crichton S[1], Henderson E[2], Myers G[2], Tworek J[1]. *[1]Department of Educational Technology, Faculty of Education, University of Calgary, Calgary, AB. [2]Infection Prevention & Control, Calgary Health Region, Calgary, AB.*
1445-1500	**1.06 EVALUATION OF AN EDUCATIONAL INTERVENTION FOR NURSE LED TELEHEALTH CLINICS** Sevean P[1], Dampier S[1], Spadoni M[1], Strickland S[1], Pilatzke S[2], St Germain J[2]. *[1]School of Nursing, Lakehead University, Thunder Bay, ON. [2]Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON.*

CONCURRENT PODIUM SESSION #2
1330-1500

Impact of Telehealth on Users-1

Room: La Verendrye

Time	*Abstract Number, Title & Authors*
1330-1345	**2.01 TELEHEALTH: A TOOL FOR PATIENT ASSESSMENT AND DISTANCE EDUCATION IN A REGIONAL BLEEDING DISORDERS PROGRAM** Schwetz N, Jacobson R, Israels S, Houston D, Woloschuk DMM. *Bleeding Disorders Program, Health Sciences Centre, Winnipeg, MB.*
1345-1400	**2.02 RENEWING CARDIAC CARE VIA TELEHEALTH: A NURSE PRACTITIONER- DRIVEN PROGRAM IN PROGRESS** Cleary M[1], Lazar F[2], Gwadry N[2]. *[1]Department of Telehealth, Calgary Health Region, Calgary, AB. [2]Department of Cardiac Sciences, Foothills Medical Centre, Calgary, AB.*
1400-1415	**2.03 REMOTE MONITORING OF IMPLANTABLE CARDIOVERTER DEFIBRILLATORS** Cassidy MR, Mitchell LB, Exner DV, Kavanagh KM, Sheldon RS, Duff HJ, Wyse DG, Gillis AM. Presenter: Cleary M. *Department of Cardiac Sciences, University of Calgary and the Calgary Health Region, Calgary, AB.*
1415-1430	**2.04 CHALLENGES AND BENEFITS OF DEVELOPING A VIRTUAL ACQUIRED BRAIN INJURY EDUCATION PROGRAM FOR SURVIVORS/FAMILIES IN HOME COMMUNITIES** Lomax B[1], Weiser M[1], Feltz L[2], King-Smillie M[2]. *[1]Acquired Brain Injury Program, St. Joseph's Health Care (SJHC), London, ON. [2]VideoCare, London Health Sciences Centre (LHSC), London ON.*
1430-1445	**2.05 TELEHEALTH AS CHANGE AGENT: A DYNAMIC OPTION IN A NATIONAL MULTI-ORGAN TRANSPLANT PROGRAM** Young E, McQuarrie B, Ly J, Masney C, Purdy B, Laurie-Shaw B, McGonigle, S. *University Health Network, Toronto, ON.*
1445-1500	**2.06 ADAPT-A MULTIDISCIPLINARY INITIATIVE FOR EDUCATING AND SUPPORTING PATIENTS AWAITING ELECTIVE JOINT REPLACEMENT** Henry C[1], Graham S[2]. *[1]Telehealth Department, Saskatoon Health Region, Saskatoon, SK. [2]ADAPT Program, Saskatoon Health Region, Saskatoon, SK.*

CONCURRENT PODIUM SESSION #3
1330-1500

Research and Evaluation-1

Room: Salon AB

Time	*Abstract Number, Title & Authors*
1330-1345	**3.01 EVALUATION OF A TELEHEALTH INITIATIVE IN WOUND MANAGEMENT** Loyola M, Detwiller M. *Information Management and Information Technology, Interior Health, Kelowna, BC.*
1345-1400	**3.02 DESIGN AND DEVELOPMENT OF A DELIVERY SYSTEM FOR THE CHRONIC DISEASE MANAGEMENT (CDM) OF CONGESTIVE HEART FAILURE (CHF) VIA TELEHEALTH** Nyhof P[1], Botting I[2]. *[1]University of Manitoba/Winnipeg Regional Health Authority, Winnipeg, MB. [2]Winnipeg Regional Health Authority, Winnipeg, MB.*
1400-1415	**3.03 STRATEGIES FOR THE DEVELOPMENT OF A MULTIDISCIPLINARY OSTEOPOROSIS TELEHEALTH PROGRAM** Jaglal S[1], Hawker G[1], Dickson L[1], Cameron C[1], Radziunas I[2], Ratansi A[2]. *[1]Osteoporosis Research Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [2]Multidisciplinary Osteoporosis Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON.*
1415-1430	**3.04 EVALUATION AND QUALITY ASSURANCE OF A MULTIDISCIPLINARY TELEHEALTH PROGRAM** Jaglal S[1], Hawker G[1], Dickson L[1], Cameron C[1], Radziunas I[2], Ratansi A[2]. *[1]Osteoporosis Research Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [2]Multidisciplinary Osteoporosis Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON.*
1430-1445	**3.05 TELEMENTAL HEALTH OUTCOMES MEASUREMENTS EVALUATION** Urness D, Wass M, Tian E. *Telemental Health Service, Alberta Mental Health Board, Ponoka, AB.*
1445-1500	**3.06 POTENTIAL TRAVEL COST SAVINGS FOR VIDEOCONFERENCED vs. CONVENTIONAL SESSIONS IN ALBERTA** Ohinmaa A[1], Scott RE[2]. *[1]Department of Public Health Sciences, University of Alberta, Edmonton, AB. [2]Health Telematics Unit, University of Calgary, Calgary, AB.*

CONCURRENT PODIUM SESSION #4
1330-1500

Sustainability and Integration-1

Room: Club Room

Time	*Abstract Number, Title & Authors*
1330-1345	**4.01 TELEHEALTH READINESS FOR CONDUCTING ELECTIVE CONSULTATIONS IN ONTARIO: CARECONNECT'S DEPLOYMENT OF A SELF-ASSESSMENT TOOL** Archambault P. *CareConnect, Ottawa, ON.*
1345-1400	**4.02 THE DEVELOPMENT OF A COMMON MULTINETWORK COMMUNICATION TOOL FOR SCHEDULING EDUCATIONAL EVENTS: BRIDGING TECHNOLOGIES, PROCESSES, AND HUMAN RESOURCES** Ridgewell J[1], Dinel G[1], Carter L[2], Timothy V[2], Archambault P[3], Novak G[3]. *[1]VideoCare, London, ON. [2]NORTH Network, Toronto, ON. [3]Care Connect, Ottawa, ON.*
1400-1415	**4.03 ONCE BITTEN, TWICE SHY: THE RENEWAL OF A REGIONAL TELEPSYCHIATRY PROGRAM** Kroeker A[1], Sanders S[2], Timleck K[1]. *[1]VideoCare, London Health Sciences Centre, London ON. [2]Regional Mental Health Care, St. Joseph's Health Care, London, ON.*
1415-1430	**4.04 e-READINESS IN HEALTHCARE: TOWARDS SUSTAINABLE IMPLEMENTATION OF INFORMATION AND COMMUNICATIONS TECHNOLOGY IN THE DEVELOPING WORLD** Khoja S, Scott RE. *Health Telematics Unit, University of Calgary, Calgary, AB.*
1430-1445	**4.05 THE EXPANDED ROLE OF THE TELEHEALTH COORDINATOR WITH INTEGRATION OF TELEHEALTH SERVICES INTO CURRENT HEALTH CARE PRACTICES: SKILL SETS IDENTIFIED** Adair L. *MBTelehealth, Winnipeg Regional Health Authority, Winnipeg, MB.*
1445-1500	**4.06 MANAGED GROWTH STRATEGY: ASSESSING FIT AND ALIGNMENT OF NEW OPPORTUNITIES USING A CRITERIA-BASED APPROACH** MacLean N[1], Spracklin E[1], Hardy K[2]. *[1]VideoCare, Southwestern Ontario Telehealth Network, London, ON. [2]Richard Ivey School of Business, University of Western Ontario, London, ON.*

CONCURRENT PODIUM SESSION #5
1330-1500

Homecare-1

Room: Tache

Time	*Abstract Number, Title & Authors*
1330-1345	**5.01 PATIENTS' AND NURSES' EXPERIENCES WITH TELEHOMECARE: RESULTS OF A RESEARCH STUDY** Atack, L[1], Duff, D[2]. *[1]Health Sciences, Centennial College, Toronto, ON. [2]York University, Toronto, ON.*
1345-1400	
1400-1415	**5.02 TELEHOMECARE IN EAST YORK TORONTO: TESTING IMPLEMENTATION MODELS** McCulloch T[1], Atack L[1], Duff, D[2]. *[1]Health Sciences, Centennial College, Toronto, ON. [2]Faculty of Nursing, York University, Toronto, ON.*
1415-1430	**5.03 TELEHOMECARE IN PALLIATION STUDY (TIPS): TECHNICAL TALES OF TORTURE, TORMENT AND TRIUMPH** Beirne G[1], Dreger M[2], Goncharenko D[2], Kirshen AJ[3], Librach L[3], Stern A[4]. *[1]Telepresence Systems Inc., Toronto, ON. [2]NORTH Network, Toronto, ON. [3]Temmy Latner Centre for Palliative Care, Mount Sinai Hospital, Toronto, ON and Faculty of Medicine, University of Toronto, Toronto, ON. [4]McMaster University, School of Nursing, Hamilton, ON.*
1430-1445	**5.04 UNE EXPERIENCE DE TELESURVEILLANCE AVEC DES MPOC AU SERVICE REGIONAL DE SOINS A DOMICILE DE MONTREAL** St-Jules D, Gauthier M. *Service Régional de Soins À Domicile pour les malades pulmonaires chroniques de Montréal - Hôpital Maisonneuve-Rosemont, Montréal, QC.*
1445-1500	**5.05 CAN HOME TELEHEALTH TECHNOLOGY SUPPORT DISEASE MANAGEMENT IN ASTHMA TEENS?** Cai P[1], Hebert M[1], Cowie R[2], Meadows L[3]. *[1]Health Telematics Unit, Department of Community Health Sciences, University of Calgary, Calgary, AB. [2]Department of Medicine and Community Health Sciences, University of Calgary, Calgary, AB. [3]Department of Family Medicine and Community Health Sciences, University of Calgary, Calgary, AB.*

MONDAY AFTERNOON PLENARY SESSIONS
1500-1730

Time	Session	Room
1500-1730	**Panel Session #2 Aboriginal Telehealth Initiatives** *Moderator*: Robert Vigneault, Canada Health Infoway	Provencher
	Part I: Operational issues for two large aboriginal telehealth networks	
1500-1520	**Presentation #1: Operational issues related to sustainability, capacity building and the resource approach for First Nations telehealth in the KOTH Network** ***Donna Williams***, Regional Telehealth Coordinator, KO Telehealth ***Kevin Houghton***, Program Manager, KO Telehealth	Provencher

This presentation will provide an overview of the business model required to run a comprehensive First Nations Telehealth network in remote First Nations communities. Operational, capital and connectivity funding strategies and challenges required to build a Telehealth network in remote communities will be reviewed. Strategies that support integration and sustainability will also be discussed.
In addition, approaches on how KOTH is utilizing Telehealth to build capacity, promote professional development and administer community health workers will be explored. The role of the Community Telehealth Coordinator as an integral part of this process will be reviewed in detail.
Future strategies for KOTH include the importance of re-investing health cost savings into the community economy to leverage non-health programs to integrate and capitalize on the technology. Through this process, communities can address determinants of health as they relate to income, education, health access and social status.

Donna Williams is originally from Curve Lake First Nation, Ontario. She graduated with a diploma in nursing in 1989 and moved to Red Lake, ON to do clinical nursing in the north. In addition, Donna has worked in Public Health, doing health promotion and health planning with an emphasis on First Nations health issues. Three years ago, she started with Keewaytinook Okimakanak Telehealth and is now coordinating Telehealth services to 24 remote First Nations communities in Northwestern Ontario. As the Regional Telehealth Coordinator of Keewaytinook Okimakanak Telehealth, Donna's major responsibilities include supporting Community Telehealth Coordinators in implementing a community based Telehealth program. In addition to maintaining her responsibilities with KO Telehealth, Donna is President of the Aboriginal Telehealth Knowledge Circle, a national organization dedicated to supporting Telehealth in Aboriginal communities through the sharing of knowledge and best practices. In 2003, Donna completed her Bachelor of Science in Nursing degree with First Class Standing from Lakehead University.

Kevin Houghton was born and raised in Kenora, Ontario. Kevin obtained a post-secondary education at the University of Manitoba by completing the Bachelor of Commerce Honours program. After completion of his degree, he entered into the Institute of Chartered Accountants of Manitoba where he completed the 30 month articling period and passed the 4 day Uniform Final Exam and obtained his CA designation in January 2002.
Kevin joined the Keewaytinook Okimakanak team as Finance Manager in June 2003 and saw this exciting new initiative known as 'Telehealth'. He joined the KO Telehealth team as Project Manager in November 2003 and has enjoyed working with the staff and communities by introducing this exciting new technology that can create improved access to health care services.

1520-1540	**Presentation #2: Alberta First Nations Telehealth Project** ***Mel MacLean***, Health Business Analyst, Strategic Partnerships, Health Assessment and Surveillance Directorate, Health Canada Alberta Region, First Nations and Inuit Health Branch	
1540-1610	Nutrition Break	Crystal Ballroom

Part II: First Nations telehealth needs and policy approaches to satisfying those needs Provencher

1610-1630 **Presentation #3: First Nations needs and desired policy solutions**

***Valerie Gideon*,** Health and Social Development, Director, Assembly of First Nations

The presentation will give an overview of outcomes of the Assembly of First Nations' and the Inuit Tapiriit Kanatami's First Nations and Inuit Telehealth Summit entitled *Connecting Communities for Better Health*. The Summit is being held on September 23-24, 2005, in Winnipeg, Manitoba.

To date, First Nations and Inuit have been largely left out of Pan-Canadian investments in e-health, including telehealth. With more than 30% of communities located more than 90 kilometres from physician services, it stands to reason that First Nations and Inuit communities are a matter of priority in national, provincial and territorial telehealth planning. First Nations and Inuit "champions of telehealth" have gathered rich knowledge of challenges, successes and future directions from which such planning can greatly benefit.

The first of its kind, the National First Nations and Inuit Telehealth Summit is aimed at bringing together First Nations, Inuit, federal, provincial, territorial and community telehealth stakeholders in a national meeting to share this First Nations and Inuit telehealth knowledge, practices and lessons learned. One of the key outcomes of the Summit will be the launch of regional planning sessions to determine priorities and future strategies for the sustained and effective implementation of telehealth across First Nations and Inuit communities.

The Summit is organized to foster open dialogue on three key objectives:

1. Building the knowledge and skills of First Nations and Inuit with a special focus on sustainability, e-readiness, and effectively managing change.
2. Ensuring due process in telehealth planning and deployment through engaging in decision-making that recognizes First Nations and Inuit jurisdiction, deals with inter-jurisdictional issues, and meets concerns relating to privacy, security, and OCAP of data and information.
3. Planning next steps through expanding opportunities for capacity development, identifying tools and processes that will improve health care delivery, and promoting the development of regional First Nations and Inuit Telehealth plans.

Dr. Valerie Gideon is a member of the Mik'maq Nation of Gesgapegiag, Quebec, Canada. She currently holds the position of Director of Health and Social Development at the Assembly of First Nations in Ottawa, Ontario. Dr. Gideon previously held the position of Director of the First Nations Centre at the National Aboriginal Health Organization. She was named Chair of the Aboriginal Peoples' Health Research Peer Review Committee of the Canadian Institutes of Health Research in 2004. She graduated from McGill University (Montreal) in 2000 with a Ph.D. (Dean's List) in Communications (dissertation pertaining to telehealth and citizen empowerment). She previously completed a Masters of Arts in 1996 at McGill. She is a founding member of the Canadian Society of Telehealth.

1630-1650 **Presentation #4: Federal Perspective and how First Nations needs and desired policy solutions are being addressed**

***Ernie Dal Grande*,** First Nations and Inuit Health Branch, Health Canada

Health Canada's, First Nations and Inuit Health Branch (FNIHB)is committed to building healthy First Nations and Inuit communities. FNIHB is working with First Nation and Inuit people to find ways to sustain existing telehealth investments, infrastructure and programs and to plan for future new telehealth services. With a national budget of $1.7 billion and over 20 different community-based health programs managed by either First Nations and Inuit health administrators or the FNIHB directly, the jurisdictional complexity of delivering care while working within provincial/territorial health systems is challenging. Linking telehealth technology and processes with primary health care services and programs, while working within provincial or territorial telehealth networks has shown that diagnosis and treatment can be improved. Recently, the most senior levels of federal/provincial/territorial/aboriginal governments, under the guidance of the Prime Minister, have been working to chart a new course for health care delivery for Aboriginal peoples. All stakeholders aspire for a more responsive and equitable community-based primary health care system, better integrated and more efficient. In partnership with all key stakeholders, the FNIHB is working to find practical ways to improve health services delivery and telehealth is seen as having great potential.

Ernie Dal Grande has a broad range of experience with federal level Aboriginal programming, having worked eight years with the Department of Indian Affairs and the past sixteen years in the First Nations and Inuit Health Branch on a variety of management improvement or IM/IT projects.
Ernie is in the position of National Telehealth Program Manager, located within the Primary Health Care Division of the Primary Health Care and Public Health Directorate with the First Nations and Inuit Health Branch (FNIHB), Health Canada, in Ottawa, Ontario.
For the past eight years, he has managed the development of an emerging FNIHB Telehealth Program working directly with First Nations communities and organizations.
Ernie is presently developing partnerships with all 7 FNIHB regions, provincial telehealth programs, other federal departments, Canada Health Infoway, and national Aboriginal organizations to develop a policy framework and strategic plan for future telehealth deployment. He has a Bachelor of Arts (Political Science) from Carleton University, Ottawa.

1650-1720	**Panel Discussion Period**	Provencher
1730-1730	**Summary and Wrap-up**	
1800-1900	**Gala Dinner Reception**	Concert Ballroom
1900-2030	**Gala Dinner and CST Awards Presentations**	Concert Ballroom
2030	**After dinner relaxation and entertainment at The Forks**	Offsite

TUESDAY MORNING, SEPTEMBER 27

Time	*Session*	*Room*
0700-1400	Registration	
0800-1500	Exhibits and posters displays	Crystal Ballroom
0830-1000	Concurrent Podium Session #6 – Policy Issues	Gateway
	Concurrent Podium Session #7 – Research and Evaluation-2	La Verendrye
	Concurrent Podium Session #8 – Sustainability and Integration-2	Salon AB
	Concurrent Podium Session #9 – e-Learning-2	Tache
	Concurrent Podium Session #10 – Homecare-2 & Impact of Telehealth on Users-2	Provencher
1000-1030	Nutrition Break	Crystal Ballroom
1030-1200	Concurrent Podium Session #11 – Underserviced Communities	Gateway
	Poster Session P1 – Impact of Telehealth on Users & Homecare	La Verendrye
	Poster Session P2 – Sustainability and Integration	Salon AB
	Poster Session P3 – e-Learning & Underserviced Communities	Tache
1200-1330	Lunch, Exhibits and Poster Viewing	Crystal Ballroom

Continental Breakfast for all delegates
0730-0830
Crystal Ballroom & Foyer

Sponsored by CBCI

CONCURRENT PODIUM SESSION #6
0830-1000

Policy Issues

Room: Gateway

Time	*Abstract Number, Title & Authors*
0830-0845	**6.01 DEVELOPING A CANADIAN TELEHEALTH ACCREDITATION PROGRAM: A CCHSA INITIATIVE FOR HEALTH CARE ORGANIZATIONS** Zawadski, D. *National Market Development Department, The Canadian Council on Health Services Accreditation, Ottawa, ON.*
0845-0900	**6.02 POSTCARD FROM AN ACCREDITATION JOURNEY: THE CCHSA TELEHEALTH PROVIDER ACCREDITATION EXPERIENCE** Youell P. *Telehealth Programs and Services, Royal Ottawa Health Care Group and University of Ottawa Northern Ontario Francophone Psychiatry Program, Ottawa, ON.*
0900-0915	**6.03 NEW BRUNSICK STRATEGIC PLAN FOR TELEHEALTH** Bosca S *on behalf of the NB Telehealth Working Group, Bathurst, NB.*
0915-0930	**6.04 FROM VISION TO REALITY: IS E-HEALTH IN CANADA WHAT IT WAS INTENDED TO BE?** Chouinard I, Scott RE. *Global e-Health Research and Training Program, Health Telematics Units, University of Calgary, Calgary, AB.*
0930-0945	**6.05 INFORMED CONSENT FOR VIDEOCONSULTATIONS IN CANADA: TOWARDS RECOMMENDATIONS USING THEORETICAL, LEGAL, AND PRACTICAL PERSPECTIVES** Chouinard I, Scott RE. *Global e-Health Research and Training Program, Health Telematics Units, University of Calgary, Calgary, AB.*
0945-1000	**6.06 TELEHEALTH AND INFORMED CONSENT REVISITED: DO PATIENTS STILL NEED TO SIGN ON THE DOTTED LINE?** Lynch J. *The Ottawa Hospital, Telehealth & AV Services, Ottawa, ON.*

CONCURRENT PODIUM SESSION #7
0830-1000

Research and Evaluation-2

Room: La Verendrye

Time	*Abstract Number, Title & Authors*
0830-0845	**7.01 TELEHEALTH AND RURAL MEDICAL PRACTICE: A SURVEY AMONG ALBERTA PHYSICIANS** Gagnon MP[1], Jennett PA[1], Scott RE[1], Fortin JP[2], Landry R[3]. *[1]Health Telematics Unit, University of Calgary, Calgary, AB. [2]Department of Social and Preventive Medicine, Laval University, Quebec, QC. [3]Department of Management, Laval University, Quebec, QC.*
0845-0900	**7.02 PROFESSIONAL PRACTICE STANDARDS AND RESEARCH ETHICS IN TECHNOLOGY-BASED HEALTHCARE PROGRAMS PROVIDED TO PATIENTS IN THEIR HOMES** Marziali, E, Dergal-Serafini, J. *University of Toronto and Baycrest Centre for Geriatric Care, Toronto, ON.*
0900-0915	**7.03 HOME IS WHERE THE HEART IS: CARDIAC REHABILITATION EDUCATION FOR RURAL NORTHERNERS** Michaud JM[1], Sherrington L[2], Kmill C[3], Third G[3], Poupore J[4]. *[1]NORTH Network, Sudbury, ON. [2]NORTH Network, Thunder Bay, ON. [3]Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON. [4]Sudbury Regional Hospital, Sudbury, ON.*
0915-0930	**7.04 HEALTHCARE PROFESSIONALS' PERSPECTIVES ON TELEHEALTH IN RURAL FIRST NATIONS CARE** Sharman Z[1], Steele C[2], Dow S[3], Jarvis-Selinger S[4], Novak Lauscher H[4], Ho K[4]. *[1]Interdisciplinary Studies Program, University of British Columbia, Vancouver, BC. [2]Department of Psychology, Concordia University, Montreal, QC. [3]Department of Sociology and Anthropology, Concordia University, Montreal, QC. [4]Division of Continuing Professional Development and Knowledge Translation, University of British Columbia, Vancouver, BC.*
0930-0945	**7.05 NL TELEONCOLOGY PROGRAM: DOES THE LITERATURE PROVIDE EVIDENCE TO JUSTIFY THE PROGRAM?** Dwyer P[1], House M[2], Laing K[3]. *[1]TETRA, Faculty of Medicine, MUN, St. John's, NL. [2]Faculty of Medicine, MUN, St. John's, NL. [3]Newfoundland Cancer Treatment Research Foundation, St. John's, NL.*
0945-1000	**7.06 EYE CONTACT AND THE PROVIDER – PATIENT RELATIONSHIP. AN EVIDENCE-BASED ANALYSIS OF EYE GAZE TO SUPPORT BEST TELEHEALTH PRACTICE** Rossos PG[1], Purdy B[1], McGonigle S[1], Tam T[2]. *[1]Telehealth Program, University Health Network, Toronto, ON. [2]Medical Devices information Group, Centre for Global E-Health Innovation, University Health Network, Toronto, ON.*

CONCURRENT PODIUM SESSION #8
0830-1000

Sustainability and Integration-2

Room: Salon AB

Time	*Abstract Number, Title & Authors*
0830-0845	**8.01 CAN TELEHEALTH INTEGRATION IN THE CORRECTIONS SECTOR CONTRIBUTE TO CANADIAN HEALTH CARE REFORM AND RENEWAL?** Waite K[1], Shaw J[2], Innocent J[3], Irvine B[4], Scott, D[3], Sutherland V[5], Fenton C[1], Flewelling C[1], Nickoloff A[1], Brown, E[1]. *[1]NORTH Network, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [2]Ministry of Community Safety and Correctional Services, Toronto, ON. [3]Central East Correctional Facility, Lindsay, ON. [4]Monteith Correctional Complex, Monteith, ON. [5]Sunnybrook and Women's College Health Sciences Centre, Toronto, ON.*
0845-0900	**8.02 RUNNING THE CLINICAL TELEHEALTH GAUNTLET: FROM CONCEPT TO PILOT TO INTEGRATED PROGRAM - CAPITAL HEALTH'S SUCCESS STORY** Iskiw B, Huffman D. *Capital Health Regional Telehealth Department, Edmonton, AB.*
0900-0915	**8.03 PROJECT TÉLÉSANTÉ MANITOBA** Pinsonneault L, Vigneault, R. *MBTelehealth, Winnipeg Regional Health Authority, Winnipeg, MB.*
0915-0930	**8.04 A SCALABLE MIDDLEWARE SERVICE ARCHITECTURE FOR MOBILE MEDICAL APPLICATION** Light J, Arunachalam B. *Department of Computer Science & Applied Statistics, University of New Brunswick, Saint John, NB.*
0930-0945	**8.05 SUPPORTING TELEHEALTH FROM A DISTANCE: THE DEPLOYMENT OF MOBILE TOOLS FOR MOBILE WORKERS** Heise M, Loewen L. *MBTelehealth, Winnipeg, MB.*
0945-1000	**8.06 RESPONDING TO THE NEED: CARECONNECT'S INTEGRATED SYSTEM FOR THE MANAGEMENT AND DELIVERY OF TELEHEALTH SERVICES** McVey K. *CareConnect, Ottawa, ON.*

CONCURRENT PODIUM SESSION #9
0830-1000

e-Learning-2

Room: Tache

Time	*Abstract Number, Title & Authors*
0830-0845	**9.01 REDEFINING THE POSSIBLE – USING TELEHEALTH TECHNOLOGY WITHIN A MULTIMEDIA E-LEARNING INITIATIVE** Purdy B, McGonigle S, Laurie-Shaw B, Rossos PG. *Telehealth Program, University Health Network, Toronto, ON.*
0845-0900	**9.02 CONSIDERATION OF COGNITIVE, SOCIAL AND TEACHER PRESENCE IN EVALUATION OF E-LEARNING** Hebert MA[1], Lau F[2], Paquin MJ[3]. *[1]Global e-Health Research and Training Program, University of Calgary, Calgary, AB. [2]School of Information Science, University of Victoria, Victoria, BC. [3]Hospice Palliative Care Network, Alberta Cancer Board, Calgary, AB.*
0900-0915	**9.03 VIDEOCONFERENCING SUPPORT OF RURAL/NORTHERN TRAINING ROTATIONS IN PSYCHIATRY IN ONTARIO** Cooke RG[1,2], Hodges B[1,3], Ravitz P[1,2], Parker S[1], Holtby J[1,4]. *[1]University of Toronto, Toronto, ON. [2]Centre for Addiction and Mental Health, Toronto, ON. [3]University Health Network, Toronto, ON. [4]North Bay Psychiatric Hospital, North Bay, ON.*
0915-0930	**9.04 INFORMATION AND COMMUNICATION TECHNOLOGY IN UNDERGRADUATE MEDICAL EDUCATION: PREPARING FUTURE TELEHEALTH USERS** Sadovy B[1], Bradley J[1,2]. *[1]Medical Education, University Health Network, Toronto, ON. [2]Faculty of Medicine, University of Toronto, Toronto, ON.*
0930-0945	**9.05 DEVELOPMENT OF A MULTIDISCIPLINARY TELEHEALTH CLINICAL PROTOCOL** Flewelling C[1], Dalziel S[1], Nickoloff A[1], Dickson L[2], Cameron C[2]. *[1]NORTH Network, Toronto, ON. [2]Multidisciplinary Osteoporosis Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON.*

CONCURRENT PODIUM SESSION #10
0830-1000

Homecare-2 & Impact of Telehealth on Users-2

Room: Provencher

Time	*Abstract Number, Title & Authors*
0830-0845	**10.01 REMOTE RESPIRATORY AND SWALLOWING SOUND MONITORING SYSTEM** Aboofazeli M, Moussavi Z. *Department of Electrical and Computer Engineering, University of Manitoba, Winnipeg, MB.*
0845-0900	**10.02 TÉLÉSOINS À DOMICILE ET PREMIÈRE LIGNE (PRIMARY CARE) : EXPÉRIMENTATION AU CENTRE DE SANTÉ ET SERVICES SOCIAUX QUÉBEC NORD (CSSSQN)** Fortin JP[1,3,4], Lamothe L[2], Labbé F[3], Iloko-Fundi M[1], Messikh D[4]. *[1]Département de médecine sociale et préventive, Université Laval, Québec, QC. [2]Groupe de recherche interdisciplinaire en santé, Université de Montréal, QC. [3]Unité de recherche santé publique, Québec, QC. [4]Institut national de santé publique du Québec, Québec, QC.*
0900-0915	**10.03 REACHING RURAL AND REMOTE COMMUNITIES WITH SATELLITE TELEHOMECARE** Woronczuk C, LeDain T. *March Healthcare, Ottawa, ON.*
0915-0930	**10.04 TELEOPHTHALMOLOGY: PREVENTING BLINDNESS IN REMOTE COMMUNITIES** Muller N. *Keewaytinook Okimakanak Telehealth, Balmertown, ON.*
0930-0945	**10.05 EYE FOCUS: ASYNCHRONOUS TELEOPHTHALMOLOGY AUGUMENTS PATIENT CARE THROUGH ENHANCED REGIONAL CAPACITY** Harmos F, Timleck K, Kaban T, Gonder J, Hansford H. *VideoCare/London Health Sciences Centre, London, ON.*

CONCURRENT PODIUM SESSION #11
1030-1200

Underserviced Communities

Room: Gateway

Time	*Abstract Number, Title & Authors*
1030-1045	**11.01 THE TELEPRIMARY CARE DEMONSTRATION PROJECT: THE IMPLEMENTATION OF A MULTI-SITE PRIMARY HEALTH CARE INITIATIVE** Brown G[1], Waite K[1], Nickoloff A[1], Sarsfield L[1], Bajnok I[2], Butcher M[3], Lumsden C[4], Brown, E[1]. *[1]NORTH Network, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [2]Registered Nurses' Association of Ontario, Toronto, ON. [3]Nurse Practitioners' Association of Ontario, Toronto, ON. [4]Ontario College of Family Physicians, Toronto, ON.*
1045-1100	**11.02 LEVEL 1 WHEELCHAIR SEATING CLINIC TARGETING RURAL HOSPITAL SITES IN THE CALGARY HEALTH REGION** Keenan C, Whitney B, Gorin D, Wilson-Kramer J. *Calgary Health Region, High River, AB.*
1100-1115	**11.03 IMPACT OF TELEHEALTH IN THE TREATMENT OF LUNG CANCER** Winton T[1,2], Butts C[1], Reiman T[1], Janzen H[1], Fields A[1], Cummings G[1], Hoeber M[1], King C[2], Delorme T[2], Allen D[1], Scrimger R[1], Graham N[1], Reinbold DJ[3], O'Neill SK[3], Bexfield D[4]. *[1]Alberta Cancer Board (ACB), Edmonton, AB. [2]Capital Health (CH), Edmonton, AB. [3]Peace Country Health (PCH), Grande Prairie, AB. [4]David Thompson Health Region (DTHR), Red Deer, AB.*
1115-1130	**11.04 USING TELEHEALTH TO IMPROVE RENAL CARE IN CENTRAL AND NORTHERN ALBERTA** Harsch D[1], Iskiw B[2]. *[1]Northern Alberta Renal Program (NARP), Capital Health, Edmonton, AB. [2]Regional Telehealth Department, Capital Health, Edmonton, AB.*
1130-1145	**11.05 TELEHEALTH-ENABLED KNOWLEDGE AND SKILL TRANSFER FOR COMMUNITY-BASED FIRST NATIONS SERVICE PROVIDERS** Klassen C, Williams D. *Keewaytinook Okimakanak Telehealth, Balmertown, ON.*
1145-1200	**11.06 ADDRESSING HEALTH ACCESS ISSUES VIA A FIRST NATIONS TELEHEALTH NETWORK** Williams D. *Regional Telehealth Coordinator, Keewaytinook Okimakanak, Balmertown, ON.*

POSTER PRESENTATIONS SESSION P1
1030-1200

Impact of Telehealth on Users & Homecare

Room: La Verendrye

No.	*Abstract Title & Authors*
P1.01	**DISTANCE EDUCATION VIA TELEHEATH AND THE SUSPECTED CHILD ABUSE AND NEGLECT PROGRAM, THE HOSPITAL FOR SICK CHILDREN, TORONTO** Cheng Tsallis A[1], Smith T[2], Fontana Chow K[1], Wentzel K[2]. *[1]Telehealth Program, The Hospital for Sick Children, Toronto, ON. [2]SCAN Program, The Hospital for Sick Children, Toronto, ON.*
P1.02	**THE EVOLUTION OF PAEDIATRIC CARDIOLOGY - A YEAR IN REVIEW** Reid J[1], Fontana Chow K[1], Ouellet S[2], Burrill L[2], Makara B[3]. *[1]The Hospital for Sick Children, Telehealth Program, Toronto, ON. [2]London Health Sciences Centre, London, ON. [3]Children's Hospital of Eastern Ontario, Ottawa. ON.*
P1.03	**KITCHI-AH-HAH WII-KWUN-DIWIN: HEALTH, CULTURE AND LANGUAGE SERIES FOR ELDERS** Muller N, Klassen C. *Keewaytinook Okimakanak Telehealth, Balmertown, ON.*
P1.04	**TELE-PHYSIOTHERAPY: UTILIZING TECHNOLOGY TO SUPPORT CARE DELIVERY DURING A HUMAN RESOURCE SHORTAGE IN ONTARIO** Huffman S[1], Jones N[2], Bolton C[3]. *[1]CareConnect, Kingston, ON. [2]Quinte Healthcare Corporation, Belleville, ON. [3]Regional Stroke Strategy, Kingston General Hospital, Kingston, ON.*
P1.05	**RURAL TELEHEALTH COORDINATORS: A VITAL LINK IN TELEHEALTH INTEGRATION IN THE CALGARY HEALTH REGION** Cleary M[1], Keenan C[1], Kettle J[1], Nijssen-Jordan C[2]. *[1]Telehealth Program Calgary Health Region, Calgary, AB. [2]University of Calgary, Calgary, AB.*
P1.06	**SAVETIME: REAL-TIME EMERGENCY MEDICINE CONSULTATIONS USING TELEHEALTH TECHNOLOGY IN THE CALGARY HEALTH REGION** Jordan V[1], Curry G[1], Cleary M[2], Keenan C[2], Nijssen-Jordan C[2,3]. *[1]Department of Emergency Medicine, Calgary Health Region, Calgary, AB. [2]Telehealth, Calgary Health Region, Calgary, AB. [3]University of Calgary, Calgary, AB.*
P1.07	**BRIDGING THE DISTANCE FOR TUBE FED CHILDREN USING TELEHEALTH** Graham-Parker C, Houtstra T, Mahood J, McGuiness R, Pochynok V. *Northern Alberta Home Nutrition Support Program, and the Sollery Children's Hospital Telehealth, Edmonton, AB.*
P1.08	**TELEHOMECARE IN PALLIATION STUDY (TIPS): REAL-TIME VIDEOCONFERENCE SUPPORT FOR END OF LIFE CARE.** Abernathy T[1], Cohen R[2], Goldsmith C[3], Jadad A[4], Kirshen A[5], Librach L[5], Thabane L[3], Stern A[6]. Presenter: Willerding N. *[1]Central West Health Planning Information Network, Hamilton, ON. [2]McGill University, Montreal, QC. [3]Centre for Evaluation of Medicines, McMaster University, Hamilton, ON. [4]Centre for Global ehealth Innovation, Toronto, ON. [5]Temmy Latner Centre for Palliative Care, Toronto, ON. [6]School of Nursing, McMaster University, Hamilton, ON.*

POSTER PRESENTATIONS SESSION P2
1030-1200

Sustainability and Integration

Room: Salon AB

No.	*Abstract Title & Authors*
P2.01	**ONTARIO CHILDREN'S HEALTH NETWORK TELEPAEDIATRICS IN ONTARIO** Guttman B[1], Ouellet S[2], Fontana Chow, K[3]. *[1]Ontario Children's Health Network, Toronto, ON. [2]London Health Sciences Centre, London, ON. [3]The Hospital for Sick Children, Toronto, ON.*
P2.02	**INTERNATIONAL COLLABORATIVE PROJECT FOR THE PROVISION OF PAEDIATRIC HEALTH CARE AND PROFESSIONAL EDUCATION** Fontana Chow K[1], Zulaika A[2], Sharma K[1], Hamilton R[1], Reid J[1], Cheng Tsalis A[1]. *[1]The Hospital for Sick Children, Toronto, ON. [2]University of the West Indies, St. Augustine Campus, Trinidad.*
P2.03	**INTEGRATING TELEHEALTH INTO THE HOSPITAL MAINSTREAM: A CASE STUDY FOR DEVELOPING A STANDARDIZED IMPLEMENTATION METHODOLOGY** Feltz L[1], Piroli K[2], Kroeker A[1], Hastings D[1], King S[1]. *[1]VideoCare, London Health Sciences Centre, London, ON. [2]Leamington District Memorial Hospital, Leamington, ON.*
P2.04	**TELEHEALTH NURSES WORKING FROM HOME – INNOVATION BRINGING QUALITY PATIENT CARE AND QUALITY OF WORK LIFE TOGETHER** Ottman J[1], Savoie, L[2]. *[1]Call Centre Operations, Clinidata Corporation, Toronto ON. [2]Call Centre Operations, Clinidata Corporation, Moncton NB.*
P2.05	**CAN YOU SEE THE HEARTBEAT: USING VIDEOCONFERENCING TO ASSIST PAEDIATRIC CARDIOLOGY CONSULTATIONS** Ouellet S[1], Burrill L[1], Feltz K[2]. *[1]Women and Children's Program, Children's Hospital of Western Ontario, London ON. [2]VideoCare, London Health Sciences Centre, London ON.*
P2.06	**IMPROVING THE PATIENT EXPERIENCE: THE URBAN TELEHEALTH INITIATIVE FOR ORGAN TRANSPLANT RECIPIENTS** McGonigle S, Purdy B, Laurie-Shaw B, Rossos PG. *Telehealth Program, University Health Network, Toronto, ON.*
P2.07	**CRITERIA FOR EXPANSION AND INTEGRATION OF THE LUNG CANCER TRIAGE AND FOLLOW – UP CLINIC** Winton T[1,2], Butts C[1], Janzen H[1], Reiman T[1], Fields A[1], Cummings G[1], Hoeber M[1], King C[2], Allen D[1], Scrimger R[1], Graham N[1], Reinbold D[3], O'Neill S[3], Bexfield D[4]. *[1]Alberta Cancer Board (ACB), Edmonton, AB. [2]Capital Health (CH), Edmonton, AB. [3]Peace Country Health (PCH), Grande Prairie, AB. [4]David Thompson Health Region (DTHR), Red Deer, AB.*
P2.08	**TECHNICAL CHALLENGES AFFECTING CLINICAL AND OPERATIONAL STABILITY IN REMOTE FIRST NATIONS COMMUNITIES: A TELEHEALTH SCHEDULER'S PERSPECTIVE** Stevens A. *Telehealth Scheduler, Keewaytinook Okimakanak, Balmertown, ON.*

POSTER PRESENTATIONS SESSION P3
1030-1200

e-Learning & Underserviced Communities

Room: Tache

No.	*Abstract Title & Authors*
P3.01	**UTILIZING TELEHEALTH TO FACILITATE CHANGE IN THE UNIVERSITY OF ALBERTA'S DENTAL OUTREACH PROGRAM** Zakariasen KL[1], Yacyshyn JR[2]. *[1]Department of Dentistry, University of Alberta, Edmonton, AB. [2]Continuing Dental Education, University of Alberta, Edmonton, AB.*
P3.02	**UTILIZING A "VIRTUAL COMMUNITIES OF PRACTICE" CONCEPT AS CATALYST FOR ACCEPTANCE OF NOVEL TELE-DENTISTRY E-LEARNING INITIATIVES** Yacyshyn JR[1], Zakariasen KL[2]. *[1]Continuing Dental Education , University of Alberta, Edmonton, AB. [2]Department of Dentistry, University of Alberta, Edmonton, AB.*
P3.03	**TELELEARNING: A CASE STUDY APPROACH TO ONCOLOGY HOSPICE PALLIATIVE CARE** Hoeber M[1], Paquin MJ[1], Hebert M[2]. *[1]Alberta Cancer Board, Edmonton, AB. [2]University of Calgary, Calgary, AB.*
P3.04	**WEBOLUTIONIZING EDUCATION: AN INNOVATIVE APPROACH TO PROFESSIONAL DEVELOPMENT** Lefevre N, Lacroix H. *Saint Elizabeth Health Care, Markham, ON.*
P3.05	**TELE-PHARMACY** Loyola M. *Information Management and Information Technology, Interior Health, Kelowna, BC.*
P3.06	**A NETWORK WITHIN A NETWORK: HOW GREY-BRUCE HEALTH SERVICES IS USING VIDEOCARE TELECONFERENCING TO MEET INTERNAL AND EXTERNAL NEEDS** McGregor K[1], Eldred C[1], Robinson D[1], Kroeker A[2]. *[1]Organizational Development and Learning, Grey-Bruce Health Services, Owen Sound, ON. [2]VideoCare, London Health Sciences Centre, London ON.*
P3.07	**SUCCESSFUL INTEGRATION OF A TELEHEALTH PROGRAM INTO A REGIONAL HOSPITAL** Bruni T, Sherrington L. *NORTH Network, NW Regional Telehealth Program, Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON.*
P3.08	**MB TELEHEALTH EXPANSION AND PARTNERSHIPS IN FIRST NATIONS COMMUNITIES** Sanderson B. *MB Telehealth, Winnipeg Regional Health Authority, Winnipeg, MB.*
P3.09	**PROVIDING PEDIATRIC TB CLINICS AT A DISTANCE** Boles S[1], Consunji-Araneta, R[2]. *[1]MBTelehealth, Winnipeg, Regional Health Authority, Winnipeg, MB. [2]Section of Respirology, Dept. of Pediatrics & Child Health, University of Manitoba, Winnipeg, MB.*
P3.10	**USING TELEHEALTH TO ENHANCE CONSULTATION HEALTH SERVICES AND BUILD COMMUNITY CAPACITY IN REMOTE COMMUNITIES IN NORTHERN ALBERTA** Pandya R[1], McConnan L[1], Yi-Austin S[2]. *[1]Stollery Children's Hospital, Capital Health Region, Edmonton, AB. [2]Glenrose Rehabilitation Hospital, Capital Health Region, Edmonton, AB.*

TUESDAY AFTERNOON, SEPTEMBER 27

Time	*Session*	*Room*
0700-1400	Registration	
0800-1500	Exhibits and posters displays	Crystal Ballroom
1330-1350	CST President's Address	Provencher
1350-1505	Panel Session #3 – Primary Health Care and Telehealth	Provencher
1505-1530	Presentation of Awards for Podium and Poster Presentations Closing Address	Provencher

TUESDAY AFTERNOON PLENARY SESSIONS

Time	Session	Room
1330-1350	**CST President's Address**	Provencher
	Richard Scott, 2005-2006 President of the Canadian Society of Telehealth	
1350-1505	**Panel session #3: Primary Health Care and Telehealth** **Sponsored by Canada Health Infoway**	
	Moderator: Karen Waite, Manager, Special Projects, NORTH Network	

1350-1410 **Presentation #1: Primary Health Care and Telehealth: Making the Links**

Liz Loewen, Director, MBTelehealth, Winnipeg Regional Health Authority
Marie O'Neill, A/Director, Rural & Northern Regional Support Services, Manitoba Health

Telehealth has the potential to play a key role in supporting and enhancing National commitments to health system renewal and sustainability. The recent Romanow and Kirby Reports both highlight telehealth and primary health care separately as mechanisms for expanding access and improving health services. When combined, telehealth has considerable potential to support primary health care renewal however, most telehealth networks remain focused on tertiary level care access and few primary health care initiatives are working closely with local telehealth resources. This presentation will highlight the outcomes of a National Workshop "Telehealth and Primary Health Care and Telehealth: Making the Links" made possible with a financial contribution from Health Canada, Primary Health Care Transition Fund. The Workshop, held immediately prior to the Canadian Society of Telehealth, provided a forum for information exchange and creative planning with participants examining the potential for linking primary health care services with live interactive videoconferencing over long or short distances. Key decision makers from across Canada representing both sectors attended the workshop with a focus on identifying opportunities to support and enhance existing investments in primary health care renewal at the provincial and regional level by building on existing telehealth capacity, infrastructure and expertise within each jurisdiction. A summary of concrete action items resulting from the workshop will be presented. Applied in a primary health care renewal context, telehealth can increase access to health promotion and prevention initiatives, serve as a tool for provider and public education, and support service delivery in alternative community-based settings, and enhance multidisciplinary team communication.

Liz Loewen, RN, BFA, MN, Director, MBTelehealth, Winnipeg Regional Health Authority. Liz Loewen is the Director of MBTelehealth, Winnipeg Regional Health Authority and has been a member of the network staff since its inception in 2001. Liz holds a Masters in Nursing from the University of Manitoba and has practiced as a Registered Nurse in both acute care and community based settings. With administrative and research based experience, she has led the development of telehealth reporting and accountability frameworks for the network and has published and presented on telehealth both nationally and internationally.

Marie O'Neill, currently E-Health Business Analyst & Strategic Partnerships for FNIHB Alberta region. Background in IT with First Nations, have worked in various roles with First nations for the last 15 years, at the Tribal Council level, for individual communities, for several national First Nations research groups. For the last 8 years in FNIHB under Comanagement, identifying IT strategies with Alberta First Nations for information management strategies designed to give Alberta's communities access to health information for decision making purposes via using Telehealth as a tool that will support those needs. Keen interest in giving grassroots health delivery professionals access to the tools they need to provide better heath care at the front line, as well as the repatriation of First Nations Health data.

1410-1430 **Presentation #2: Primary Health Care/Telehealth: Strategy and Investments - An Overview** Provencher

Robert Vigneault, Director - Telehealth Program, Canada Health Infoway

As an organization mandated by the federal government to invest in the development and deployment of both the EHR and Telehealth, Canada Health Infoway regards Primary Health Care Reform as a major catalyst for the deployment of information technology based solutions. The EHR, Telehealth and new approaches in Primary Health Care will revolutionize health care service delivery in Canada, and Canada Health Infoway will be both a partner and a key component in this transformation. This presentation will outline Infoway's strategic investment as it pertains to Primary Health Care both in the realm of the EHR and within Telehealth.

Robert Vigneault is currently the Telehealth Program Director with Canada Health Infoway. He is a graduate of the Masters of History Program at Carleton University where he researched both the development of Child Health Programs in Canada and the impact of Social Change on the Medical Profession. Robert joined MBTelehealth in January, 2005. Robert has worked at the senior level in both private and public healthcare with Health Canada (First Nations and Inuit Health Branch), SIS Business Alliance, IBM, TecKnowledge Healthcare Systems and Atlantic Blue Cross Care. Robert has been involved in the development and deployment of Document Management, Business Process Re-engineering, Systems Development, TeleHealth and e-Health solutions. He is a Certified Project Management Professional (PMP).

1430-1450 **Presentation #3: They didn't teach this in medical school! Technology in primary care**

José François, MD CCFP, Family Physician- Centre de santé St-Boniface, Education Director - Bilingual Family Medicine Residency Program - University of Manitoba

This presentation will highlight how information technologies such as electronic medical records and telehealth are changing primary care. It will provide a personal account on how the introductions of these technologies has changed his own practice and how it has the potential to improve access to care for patients. The presentation will also review how ensuring that future physicians are exposed to and confortable with use of technology is increasingly important.

José François, MD CCFP, Family Physician at St-Boniface Health Centre, a community health clinic in Winnipeg. Dr François is also Education Director for the Bilingual Family Medicine Residency Program at the University of Manitoba. He holds an MD from the University of Sherbrooke, completed his family medicine residency at the University of Manitoba and holds a Certificate in Medical Education from the University of Dundee.

1450-1505 **Panel discussion period**
Summary and Wrap-up

1505-1530 **Closing Ceremonies** Provencher

Presentation of Awards for Podium and Poster Presentations

Closing Address
Liz Loewen, Chair, Conference Organizing Committee

ABSTRACTS

Session 1: e-Learning-1
Oral Presentations: 1.01-1.06
Monday, September 26, 2005, 1330-1500
Room: Gateway

1.01 THE 2004 INTERNATIONAL TELENURSING ROLE SURVEY

Grady J[1], Schlachta-Fairchild L[2].
[1]Division of Nursing, Mount Aloysius College, Cresson, PA, USA; [2]iTelehealth, Inc., Frederick, MD, USA.

PURPOSE: To describe the scope of participation, characteristics, competencies and other factors related to nurses practicing with telehealth technologies.
METHOD: We developed a web-based survey for telenurses and sent over 2000 invitations to participate internationally. The Canadian Society for Telehealth was one of several professional organizations instrumental in distributing the survey.
RESULTS: Over 700 nurses from 36 countries completed the survey. Canada had the second largest number of respondents. The average telenurse is female, 48 years old, with a 50% chance of working part-time in telehealth, most often in a hospital setting. The telenurse most likely received on the job training in telehealth and is highly satisfied with telenursing, based on assessment of factors including autonomy, interaction, professional status, pay, task requirements, and organizational policies. Respondents expect a sharp increase in the demand for telenurses within three years. While the vast majority are not certified in telemedicine, telenursing, or nursing informatics, most believe that certification in telenursing is important and would be interested in achieving certification. According to these respondents, critical components of a certification program curriculum would be proficiency with technical tools, knowledge of standards and protocols, and competence in clinical care delivery.
CONCLUSION: The 2004 International Telenursing Role Survey serves as further information for nursing practice to support the emerging role of telenursing. Future growth and development of the telenursing role and education can be measured against survey findings.
ACKNOWLEDGEMENT: funding support from the Office of Naval Research, Arlington, VA, USA, and the International Council of Nurses, Geneva, Switzerland.

1.02 TRAINING AND LEARNING AT NORTH NETWORK: "GROWING" THE DISTANCE THROUGH E-LEARNING TECHNOLOGIES

Nickoloff A[1], Breslow L[1], Carter L[2].
[1]NORTH Network, Toronto, ON. [2]NORTH Network, Sudbury, ON.

INTRODUCTION: Continued growth in the number of NORTH Network telehealth users challenges our ability to meet the demand for learning. To determine if telehealth training can be effectively delivered via e-learning technologies, NORTH partnered with Memorial University, Newfoundland to offer a group of Telehealth Coordinators access to an on-line course called Introduction to Telehealth.
DESCRIPTION: Fifteen Telehealth Coordinators, with a range of experience with computers and practical work in telehealth, enrolled in the course. Participants undertook readings and assignments, dialogued with other participants and facilitators using an electronic bulletin board, and assessed telehealth-related materials at recommended web links.
RESULTS: 93% of participants agreed that they would participate in another course of this type and that the information provided was applicable to their practice. 87% reported that participation enhanced their knowledge and skill. Only 27% indicated that they were more comfortable participating in on-line discussions than in face-to-face courses. 87% found posting and reading messages on the bulletin board to be easy and agreed that being able to communicate with both colleagues and facilitators was beneficial. Barriers included the time commitment to complete the course and computer access during work hours.
CONCLUSION: E-learning technologies are an effective tool for the delivery of telehealth training to NORTH Coordinators. Redesigning selected portions of NORTH's training content, currently delivered face-to-face, into on-line courses will enable NORTH to better meet the increasing demand for learning by its membership.
ACKNOWLEDGEMENT: Office of Professional Development, Faculty of Medicine, Memorial University of Newfoundland.

1.03 THE TELEMENTORING TOOL KIT: A RESOURCE FOR NURSE PRACTITIONERS IN RURAL AND REMOTE AREAS

Mackay G[1], Brown G[2], Carter L[2], Michaud J[2], Waite K[2], Danner U[3], Butcher M[4], Blastorah M[5], Humbert J[6], Bajnok I[1].
[1]Registered Nurses' Association of Ontario, Centre for Professional Nursing Excellence, Toronto, ON. [2]NORTH Network, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [3]NORWest Community Health Centre, Armstrong Satellite, Armstrong, ON. [4]Nurse Practitioners' Association of Ontario, Toronto, ON. [5]Markham Stouffville Hospital, Markham, ON. [6]University of Ottawa, Ottawa, ON.

INTRODUCTION: Peer-to-peer mentoring relationships facilitate knowledge transfer and skill development. The use of technology to support professional practice and clinical education is growing. NORTH Network, in partnership with the Registered Nurses Association of Ontario, and with funding from the Primary Health Care Transition Fund, Ontario Ministry of Health and Long Term Care, has developed a telementoring framework and tool kit to support primary care Nurse Practitioners in rural and remote communities. The goals of the framework and tool kit are to support and enhance professional practice and growth, and reduce professional isolation.
DESCRIPTION: The Telementoring Tool Kit: A Resource for Nurse Practitioners in Rural and Remote Areas (TMentRKit) was developed and will be piloted in the fall of 2005. A program logic model has guided the implementation and evaluation of the TMentRKit. Evaluation instruments include an implementation workshop evaluation questionnaire and Telementoring Resource Kit evaluation tool. Qualitative and quantitative data will be gathered to measure effectiveness and overall satisfaction of the implementation workshops, and post-completion, the quality, usefulness and overall satisfaction of the TMentRKit.
RESULTS: While the formal evaluation is expected in April 2006, lessons learned through the early stages of implementation include issues of access to equipment,

time commitment to the mentoring relationship, challenges in dissemination of the TMentRKit following the pilot test, and the ongoing sustainability of the approach.
CONCLUSION: This innovative approach to enhancing professional practice may prove to be a valuable tool to support professional practice for health care professionals who practice in remote communities.

1.04 IMPACT OF A VIDEOCONFERENCE-BASED BRAIN INJURY REHABILITATION CURRICULUM ON PARTICIPANTS' CLINICAL PRACTICE

Konrad M[1], Tian E[1], Gray S[2], Richards C[2].
[1]Telemental Health Service, Alberta Mental Health Board, Ponoka, AB. [2]Brain Injury Rehabilitation Program, David Thompson Health Region, Red Deer, AB.

PURPOSE: To assess the impact of a Brain Injury Rehabilitation Program (BIRP) curriculum delivered via videoconferencing on participants' clinical practice.
METHODS: In January and February 2005, we contacted self-identified participants who attended 18 BIRP telelearning sessions and conducted a three-month follow-up telephone interview. The interviewer utilized a structured schedule of questions to obtain data. We analyzed qualitative results using a constant comparative method to generate themes.
RESULTS: We conducted 49 interviews (RR = 84.5%). Interviewees were health care professionals from various health authorities or organizations across Western Canada and the Arctic. 91.8 % of the interviewees reported their expectations of the curriculum were met, 67.3% agreed or strongly agreed their confidence working with clients was improved, 77.6% felt their ability to provide clinical service was improved, and 81.6% reported the curriculum provided them with knowledge about accessing resources. Interviewees cited increased knowledge and updated skills as the main reasons for their participation and satisfaction with the curriculum.
CONCLUSIONS: Telelearning programs designed for health professionals in the field of Brain Injury Rehabilitation are limited. Since 2002, BIRP telelearning curriculum has been made available to health care professionals in rural and remote communities in Alberta. We found that this videoconference-based curriculum had a positive impact on the clinical practice of participants; including confidence level, ability to provide service, and awareness of resources. We recommend that telelearning programs adopt an interactive design format supported by case examples, and provide guidance, training and technical support to presenters and participating sites.

1.05 AN INNOVATIVE ONLINE PROGRAM TO FACILITATE HAND WASHING ADOPTION AND BEHAVIOURAL CHANGE IN NURSES IN A MAJOR URBAN HEALTH REGION

Crichton S[1], Henderson E[2], Myers G[2], Tworek J[1].
[1]Department of Educational Technology, Faculty of Education, University of Calgary, Calgary, AB. [2]Infection Prevention & Control, Calgary Health Region, Calgary, AB.

INTRODUCTION: Previous education campaigns promoting hand washing behaviour among health care professionals have been effective only for as long as the campaign lasts. Instructional designers were consulted to create an innovative online hand washing program for nursing professionals.
DESCRIPTION: User requirements, lessons learned from past campaigns, as well as the instructional designers' expertise in e-learning and cognitive theory were used to create a modular professional development program with learning, reflection and assessment components to influence behavior change. The 3 modules are distributed at 6-week intervals.
RESULTS: The project is in the early stages with region-wide implementation beginning in October 2005. Focus group testing results show a positive overall rating. Specific strengths are the 24-hour accessibility, and the content-rich but time-condensed nature of the sub-modules, which facilitate learning during nurses' busy shifts. Nurses rated highly the situated and interactive learning, reflection and assessment components. Supplementary links to peer-reviewed articles of topical interest, subject-related resources on the web and downloadable documents for reference were also well received. The inclusion of instructional designers on the project has been an asset, with team members from health care disciplines gaining greater insight and appreciation for educational concerns and design principles.
CONCLUSION: The preliminary success of the present initiative has encouraged the health region to continue with creating content-appropriate infection control modules for patients, members of the public and other health care professions. The knowledge and expertise of instructional designers is invaluable towards creating accurate, useful and appropriate educational programs in health care.

1.06 EVALUATION OF AN EDUCATIONAL INTERVENTION FOR NURSE LED TELEHEALTH CLINICS

Sevean P[1], Dampier S[1], Spadoni M[1], Strickland S[1], Pilatzke S[2], St Germain J[2].
[1]School of Nursing, Lakehead University, Thunder Bay, ON. [2]Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON.

INTRODUCTION: The impetus for this research project is to explore the impact health technology assessment (HTA) on the delivery of heath services to isolated populations where human resources and infrastructure are constrained due to vast geography. The proposal is in its early stages and involves training nurses performing pre-operative and oncology assessments (normally conducted by physicians) for regional patients.
DESCRIPTION: We developed evidence-based education programs for nurses in small rural and remote communities delivered via telehealth. The content of the workshops are focused on utilizing the technology and the standards of care for nurses working in HTA. Pre and post educational surveys conducted with nurses and nurse educators are currently being evaluated. An SPSS data system is being utilized for quantitative analysis. In addition, interviews to explore the lived experience of nurses and patients will be conducted and the interview data will be themed.
RESULTS: Phase one of the project evaluates the educational workshops provided to the nurses in the region via telehealth technology. The results of the pre and post educational surveys (20-40) will be discussed. Phase 2 interviews will be conducted with 10 participants

from each group (telehealth nurse, telehealth patients) in the fall of 2005.
CONCLUSIONS: The project explores the dimensions of an educational intervention (independent variable) for nurse led telehealth clinics and its impact on rural health nursing practice (dependent variable). The results of this project will provide administrators and educators with evidence-based educational strategies supporting nurses working in HTA.

Session 2: Impact of Telehealth on Users-1

Oral Presentations: 2.01-2.06
Monday, September 26, 2005, 1330-1500
Room: La Verendrye

2.01 TELEHEALTH: A TOOL FOR PATIENT ASSESSMENT AND DISTANCE EDUCATION IN A REGIONAL BLEEDING DISORDERS PROGRAM

Schwetz N, Jacobson R, Israels S, Houston D, Woloschuk DMM.
Bleeding Disorders Program, Health Sciences Centre, Winnipeg, MB.

INTRODUCTION: Hemophilia is a rare bleeding disorder with high-risk complications. Patients require interdisciplinary care and treatment using highly specialized injectable (clotting factor) products. In Manitoba, interdisciplinary hemophilia care is delivered only at the Health Sciences Centre Bleeding Disorders Program (HSC-BDP).
DESCRIPTION: HSC-BDP used Telehealth to educate health care professionals (HCP) who provide care for BDP patients in their home communities (6 rural Manitoba; 4 Northwestern Ontario). Most (7) sites were more than 200km from HSC. HSC-BDP nurses and physiotherapists coached patients, families and rural HCP to assess joint and muscle bleeds via Telehealth patient visits (Children: 4 visits; Adults: 8 visits). Distance education also included venous access for some young children, and care of venous access devices (taped session to be presented). HCP unmet education needs were identified.
RESULTS: Telehealth sessions improved patient and HCP confidence to deliver hemophilia care in the home community, demonstrated by earlier transfer to a home hospital and decreased travel to HSC-BDP for follow-up assessment. HCP say they have forged a stronger partnership between one another and the patients and families they serve.
CONCLUSION: Improved patient outcomes, patient satisfaction, increased knowledge and support for rural HCP delivery of hemophilia care in home communities was demonstrated. The demonstrated benefits of Telehealth in the HSC-BDP can serve as a model for similar patient populations living at a distance from a tertiary referral centre. In partnership with a pharmacy educator, HSC-BDP plans to use Telehealth to address unmet nursing education needs for BDP patients in rural hospitals.

2.02 RENEWING CARDIAC CARE VIA TELEHEALTH: A NURSE PRACTITIONER- DRIVEN PROGRAM IN PROGRESS

Cleary M[1], Lazar F[2], Gwadry N[2].
[1]Department of Telehealth, Calgary Health Region, Calgary, AB. [2]Department of Cardiac Sciences, Foothills Medical Centre, Calgary, AB.

INTRODUCTION: The Foothills Medical Centre, Calgary, Alberta, performs Cardiac Surgery for patients in Southern Alberta and Eastern B.C. Following surgery, patients are discharged home and are to return six-eight weeks later for a follow up appointment with their Surgeon. Frail, elderly and complex patients often find this appointment difficult to attend to due to long distance travel and inclement weather. Cardiac Nurse Practitioners proposed to deliver timely post surgical follow up care to considerably remote patients via Telehealth.
DESCRIPTION: On approval of provincial grant funding, the Cardiac clinical project team met to establish the project service level plans, to build and implement the clinical processes and to recruit professional and technological staff for both consulting and receiving sites. Eligible Patients were recruited for a telehealth appointment based on standardized criteria and received education as to what to expect at this appointment. Using the Regional Central Telehealth Scheduling System, patients were booked into a clinic. Consultations were carried out following tightly managed and controlled referral systems.
RESULTS: To date, 32 patients have received timely post cardiac surgical assessment and treatment from the telehealth clinic, within the comforts of their home community. Critical findings on early assessment of frail patients significantly reinforce the need for this type of service.
CONCLUSION: Early post surgical telehealth follow up to a patient within their home community contributes to the adherence of follow up appointments, reduction in travel costs and time, reduced complications and timely triage for post surgical complications.

2.03 REMOTE MONITORING OF IMPLANTABLE CARDIOVERTER DEFIBRILLATORS

Cassidy MR, Mitchell LB, Exner DV, Kavanagh KM, Sheldon RS, Duff HJ, Wyse DG, Gillis AM.
Presenter: Cleary M.
Department of Cardiac Sciences, University of Calgary and the Calgary Health Region, Calgary, AB.

INTRODUCTION: Remote monitoring of implantable cardioverter defibrillators (ICD) has recently become available. We conducted the first trial of the Medtronic Carelink system in Canada. The system consists of a patient monitor that interrogates and transmits data to a secure website via an analogue telephone line.
DESCRIPTION: The data is accessed remotely by the ICD follow-up clinic staff. Fifty-two patients (42 male, mean age 66 ± 15 years) received Carelink monitors. Patients were instructed to transmit ICD data upon receipt of their monitor, every 6 months and at unscheduled times if they experienced a clinical event related to their ICD. All patients live in rural areas, 226 ± 152 km from the clinic.
RESULTS: To date, 49 scheduled and 12 unscheduled transmissions have been performed. Five clinical events led to early diagnosis and intervention (addition of antiarrhythmic therapy for the management of atrial

fibrillation or ventricular tachycardia), which could be performed without direct patient contact in the ICD clinic. One patient was unable to perform remote ICD interrogations effectively and one patient's initial Carelink monitor was faulty. Barriers to adoption of this technology by patients/ families include fear of technology, fear of reduced contact with the ICD clinic staff, and resistance from community health care providers to assist remote transmission. The cost savings to the patient due to reduced travel requirements were $20 - $600 per patient.
CONCLUSIONS: Remote monitoring of ICDs is effective, results in earlier detection and intervention of ICD system events and reduces unnecessary direct ICD clinic visits.

2.04 CHALLENGES AND BENEFITS OF DEVELOPING A VIRTUAL ACQUIRED BRAIN INJURY EDUCATION PROGRAM FOR SURVIVORS/FAMILIES IN HOME COMMUNITIES

Lomax B[1], Weiser M[1], Feltz L[2], King-Smillie M[2].
[1]Acquired Brain Injury Program, St. Joseph's Health Care (SJHC), London, ON. [2]VideoCare, London Health Sciences Centre (LHSC), London ON.

INTRODUCTION: The Acquired Brain Injury (ABI) Rehabilitation Program serves a population of 1.5 million across ten counties. The program seeks new ways to provide consultation and education for providers, families, and individuals.
DESCRIPTION: After successfully using videoconferencing for administrative meetings and patient consultations, the ABI group realized the need to reach a wider audience for their survivor and family education series. Session development included assigning a task timeline, definition of participants' roles, and recognition of costs. Community partners and supporting mechanisms were identified.
RESULTS: The ABI survivor and family education series has been offered at the Parkwood site for fifteen years. A videoconferencing pilot was completed in the spring of 2005. Participant/partner, audience, & presenter feedback all identified costs and benefits. Process challenges included identification of facilitators, lead time to coordinate presentations, and recognition of audio/visual constraints. During formal didactic sessions, less individual attention is available for individual audience members at the presenting site. Audience members at participating far sites welcome the opportunity for interactive participation. Expectations (and reservations) are high, resulting in a perceived need for hosts/presenters to "do things right the first time." Appreciation and recognition of benefits by partners and audience is also high, often followed by requests for increased access to other clinical services by videoconferencing.
CONCLUSIONS: There is a need for ongoing education for the patients and families of those who require long-term support from the healthcare system. Results of this initiative can be used to extend the scope and reach of other clinical services.

2.05 TELEHEALTH AS CHANGE AGENT: A DYNAMIC OPTION IN A NATIONAL MULTI-ORGAN TRANSPLANT PROGRAM

Young E, McQuarrie B, Ly J, Masney C, Purdy B, Laurie-Shaw B, McGonigle, S.
University Health Network, Toronto, ON.

INTRODUCTION: The Multi Organ Transplant Program (MOTP) at the University Health Network is the largest program of its kind in Canada, performing 300 transplant procedures per year and managing 4000 patients in an ambulatory setting. The integration of Telehealth into the MOTP has served as a catalyst for change.
DESCRIPTION: Over the last 3 years, transplant volumes have significantly increased. In addition, the scope of the program has broadened as the multidisciplinary team has successfully established shared-care partnerships with community clinicians. The MOTP introduced Telehealth in 2003 as a mode of care delivery for the ambulatory clinics to address these challenges.
RESULTS: Telehealth has contributed to change in the MOTP in four main areas. These are:
i. Coordination of multiple patient care – allowing greater flexibility in clinic scheduling by addressing capacity, space and efficiency issues at short notice.
ii. Bringing care to patients in their own community – contributing to the reduction of costs & commuting, and increasing access to transplant expertise nationally.
iii. Fostering shared-care partnerships with local practitioners to maintain continuity of care during ongoing disease management.
iv. Enhancement of care across distance through patient-provider visualization, as apposed to the solely audio exchange in traditional telephone follow-up.
CONCLUSION: The MOTP team has successfully integrated Telehealth into everyday clinical practice as a dynamic solution for managing increasing patient volumes and broadened program scope. This presentation will discuss challenges, successes, lessons learned, and future potential in a national transplant program.

2.06 ADAPT-A MULTIDISCIPLINARY INITIATIVE FOR EDUCATING AND SUPPORTING PATIENTS AWAITING ELECTIVE JOINT REPLACEMENT

Henry C[1], Graham S[2].
[1]Telehealth Department, Saskatoon Health Region, Saskatoon, SK. [2]ADAPT Program, Saskatoon Health Region, Saskatoon, SK.

INTRODUCTION: The aim of the ADAPT(Arthritis, Diet, Activity, Pain, and Therapy) Program is to improve the physical and mental health and the overall well being of patients as they wait for elective hip or knee joint replacement surgery.
DESCRIPTION: This is a multidisciplinary educational forum that is hosted in Saskatoon, with patients, families and healthcare providers from across the province participating via telehealth. The team of professionals in Saskatoon provide relevant pre-operative information and answer questions for individuals awaiting knee and hip replacement surgery. The disciplines involved include nursing, physical therapy, occupational therapy, social work, client patient access services, pharmacy, nutrition and dietetics, clinical health psychology and recreational therapy. Participants complete outcome measures at the time of the educational session and during the pre-

assessment clinic, as well as a patient satisfaction survey after discharge home following surgery.
RESULTS: The ADAPT program has received positive feedback from the first three sessions that have reached over 400 participants from across Saskatchewan. This innovative approach to educating individuals who are on a long surgical waiting list has provided many individuals with the answers to their questions and resources to utilize while they wait for their surgery. The post operative evaluation should determine whether the ADAPT program has any effect on patient preparedness for surgery and the length of hospital stay.
CONCLUSION: This innovative multidisciplinary pre-operative approach to client care makes excellent use of telehealth to provide health care that reaches a physically and geographically challenged population.

Session 3: Research and Evaluation-1

Oral Presentations: 3.01-3.06
Monday, September 26, 2005, 1330-1500
Room: Salon AB

3.01 EVALUATION OF A TELEHEALTH INITIATIVE IN WOUND MANAGEMENT

Loyola M, Detwiller M.
Information Management and Information Technology, Interior Health, Kelowna, BC.

INTRODUCTION: Interior Health is faced with several challenges related to wound management:

- Lengthy wait times to see the specialist
- Human and capital resource utilization related to extensive travelling
- Continuity of information during the episode of care, resulting in inconsistencies applying the most effective method of treatment

DESCRIPTION: To address these challenges a Telehealth pilot project was launched in May 2004 with approximately 20 community nurses, one wound/ostomy specialist and over 100 clients participating. An evaluation was completed in February 2005; evaluation methods included stakeholder surveys; informal interviews with the specialist; feedback from meetings; and information from the literature.
RESULTS: The evaluation showed the following key strengths of the Pixalere project:

- Clients acceptance of this approach to wound care service delivery - 100% of the clients were satisfied with the quality of service provided to them and felt that every effort was made to respect their needs. 100% also felt comfortable with the computer and camera.
- 92% of the community nurses expressed satisfaction using Pixalere as a tool to improve the quality of wound management in the community.
- Efficient use of resources, allowing for increased access to the wound care specialist
- Best practices demonstrated on the use of products.

CONCLUSIONS: The evaluation confirmed that the objectives of the Pixalere pilot were achieved and that there are substantial benefits to clients and staff of Interior Health to continue using, and to expand the use of the Pixalere program.

3.02 DESIGN AND DEVELOPMENT OF A DELIVERY SYSTEM FOR THE CHRONIC DISEASE MANAGEMENT (CDM) OF CONGESTIVE HEART FAILURE (CHF) VIA TELEHEALTH

Nyhof P[1], Botting I[2].
[1]*University of Manitoba/Winnipeg Regional Health Authority, Winnipeg, MB.* [2]*Winnipeg Regional Health Authority, Winnipeg, MB.*

INTRODUCTION: The objective of the study is to explore the delivery system design supporting a CDM program for CHF at Health Links – Info Santé in Manitoba as an integrated solution into the health care delivery system. Health line use has been concentrated in triage services, but there is interest in adopting health lines approaches to CDM strategies that are integrated into primary care. International experience with health lines and chronic disease management is concentrated in the US, The UK has also developed CDM strategies using health lines; these interventions have been add-on services or pilots and not yet integrated into primary care.
DESCRIPTION: Explain the design and development of an effective delivery system design via telehealth, as part of an integrated primary care delivery model, including:
- Exploration of theoretical models used to guide design;
- Process used to create linkages between intra-professional team of business experts, policy makers, specialists, physicians, nurses and researchers;
- Integration of technologies to manage all aspect of the program including in-home telemonitoring solutions;
- Examination of the robust research environment, including RCT, to influence future decision-making.

RESULTS: Preliminary results on the efficacy of the delivery system design including learning's gained and challenges encountered will be explained.

3.03 STRATEGIES FOR THE DEVELOPMENT OF A MULTIDISCIPLINARY OSTEOPOROSIS TELEHEALTH PROGRAM

Jaglal S[1], Hawker G[1], Dickson L[1], Cameron C[1], Radziunas I[2], Ratansi A[2].
[1]*Osteoporosis Research Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON.* [2]*Multidisciplinary Osteoporosis Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON.*

INTRODUCTION: A Multidisciplinary Osteoporosis Telehealth Program was developed in 2004 in partnership with Sunnybrook and Women's College Health Sciences Centre and NORTH Network in two pilot communities, Orillia and Timmins. This research project was developed to provide access to osteoporosis care in parts of Ontario under-serviced for family physicians.
DESCRIPTION: Various strategies were utilized to develop the multidisciplinary telehealth program. These strategies facilitated the successful implementation of a telehealth program that involves a diverse group of health care professionals (rheumatologists, pharmacist, nurse, dietitian, physical and occupational therapists) with no previous telehealth experience.
RESULTS: One-on-one interviews were conducted with each health care professional on the team to document their specific clinical protocol and identify both the materials they use during the consultation and the materials patients receive. From these interviews, the overall flow of the consultation was documented, detailed clinical protocols were developed for each health care

professional and a list of required materials was compiled. Two members of the health care team were also identified to act as liaisons between the research team and the clinical program. This helped facilitate communication throughout the development and implementation process and allowed for identification and response to concerns in a timely manner. Finally, to familiarize the clinical team with telehealth technology and to test the protocols, two mock consultations were held with the program team.
CONCLUSIONS: There are a number of strategies that can be used to facilitate the development and implementation of multidisciplinary telehealth programs and engage the health care professionals involved.

3.04 EVALUATION AND QUALITY ASSURANCE OF A MULTIDISCIPLINARY TELEHEALTH PROGRAM

Jaglal S[1], Hawker G[1], Dickson L[1], Cameron C[1], Radziunas I[2], Ratansi A[2].
[1]Osteoporosis Research Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [2]Multidisciplinary Osteoporosis Program, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON.

INTRODUCTION: A multidisciplinary osteoporosis telehealth program was developed in 2004 in partnership with Sunnybrook and Women's College Health Sciences Centre and NORTH Network in two pilot communities, Orillia and Timmins. This research project was developed to provide access to osteoporosis care in parts of Ontario that are under-serviced for family physicians.
DESCRIPTION: A description of the systematic monitoring and evaluation mechanisms used during the development and implementation of a multidisciplinary telehealth pilot project.
RESULTS: A number of mechanisms were developed to obtain feedback from both health care professionals and patients throughout the implementation of the program. First, after each consultation, the patient was asked to complete an evaluation form. Feedback from patients indicated a high level of satisfaction with the care provided. Secondly, the telehealth coordinator completed a feedback form following each consultation to document issues related to timing, flow, technical problems and overall observations. This information was used to identify opportunities for improvement on an ongoing basis. Third, roundtables were held with all the healthcare professionals in the team and the site coordinators at the patient sites to obtain feedback and suggestions for improvement. As well, educational workshops on various topics related to telehealth (i.e. 'telepresence') were provided to the health care professionals.
CONCLUSION: The monitoring mechanisms that are in place have allowed the research team to obtain feedback from both health care professionals and patients throughout the implementation of the program and provided us with the opportunity to continuously respond to suggestions and concerns in a timely manner.

3.05 TELEMENTAL HEALTH OUTCOMES MEASUREMENTS EVALUATION

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Telemental Health Service, Alberta Mental Health Board, Ponoka, AB.

INTRODUCTION: Very few telemedicine studies incorporate a pre/post methodological design, with specific questions regarding long-term goals. The present study utilizes a pre-/post- design to evaluate client satisfaction and one-month outcomes for telepsychiatry clients compared to face-to-face clients seeking psychiatric consultation.
PURPOSE: The objective of this study was to demonstrate that telepsychiatry service enables delivery of positively received and effective psychiatric care to clients in their home community that is comparable to the face-to-face office visit experience.
METHODS: Two groups were recruited: a telepsychiatry group (N = 28) and an in-person psychiatry (N = 20) group. Each was administered a quality-of-life measure (SF-12) before the consult, a satisfaction questionnaire after the session and another quality-of-life measure one month later. Group differences on the SF-12 were analyzed using t-test statistics.
RESULTS: Telepsychiatry clients demonstrated statistically significant improvements on pre and post SF-12 mental heath measures ($t = 3.678$; $p = .001$), while no change was measured for the In-person group ($t = .955$; $p = .352$). Telepsychiatry clients felt that they could present the same information as In-person (89.7%), were satisfied with their session (96.2%), and were comfortable in their ability to talk (85.7%) to similarly high levels as the In-person clients. Notably, they reflected slightly lower levels of satisfaction specifically regarding feeling supported and encouraged.
CONCLUSIONS: The present evaluation demonstrates that telepsychiatry service provides positively received and effective access to specialized psychiatric care as compared to traditional in person psychiatric consultation.

3.06 POTENTIAL TRAVEL COST SAVINGS FOR VIDEOCONFERENCED vs. CONVENTIONAL SESSIONS IN ALBERTA

Ohinmaa A[1], Scott RE[2].
[1]Department of Public Health Sciences, University of Alberta, Edmonton, AB. [2]Health Telematics Unit, University of Calgary, Calgary, AB.

PURPOSE: We investigated methods of estimating and comparing travel related costs for conventional vs. videoconferenced delivery of administrative, clinical, or educational (ACE) sessions.
METHODS: We used the provincial Telehealth Scheduling System to identify all participating sites for videoconferenced ACE sessions performed in Alberta during 2003. Activity was divided into six groups according to whether they 'provided' or 'received' the three ACE categories of service. To estimate travel costs, we made a variety of reasoned assumptions regarding the number of participants expected to travel, the mode of transport, the number of travelers per vehicle, and productivity losses.
RESULTS: Based on the specified assumptions the following estimates have been made. The average cost per conventional administrative session (including mileage, lost working time, and per diem) was $1,078, therefore performing the 2,331 administrative meetings

using telehealth saved the healthcare sector about $2.5 M in 2003. For the 1,572 patients attending the clinical sessions in 2003, travel and lost productivity costs saved were estimated at about $367,200. A rough estimate for the cost savings of providing the 1,775 education sessions through telehealth (about 50,000 participants in remote sites) would be about $4.18 M.
CONCLUSIONS: Within the limitations of the study, our calculations indicate that administrative and educational sessions performed by telehealth produce significant travel cost savings. In particular, administrative meetings have high potential savings for the health care system. Due to low volumes, patient savings by telehealth are not very high, but can be expected to rapidly increase.

Session 4: Sustainability and Integration-1

Oral Presentations: 4.01-4.06
Monday, September 26, 2005, 1330-1500
Room: Club Room

4.01 TELEHEALTH READINESS FOR CONDUCTING ELECTIVE CONSULTATIONS IN ONTARIO: CARECONNECT'S DEPLOYMENT OF A SELF-ASSESSMENT TOOL

Archambault P.
CareConnect, Ottawa, ON.

INTRODUCTION: Ontario has three telemedicine networks, each serving a geographically distinct region and each having its own set of technologies, processes, standards & policies. Over the past eighteen months, the Telemedicine Networks of Ontario collaborated to develop a common readiness tool that communicates a readiness standard for elective clinical consultations. CareConnect, the Eastern Ontario network that connects 27 partners on 45 sites, deployed its readiness tool in December 2004.
DESCRIPTION: The five-page assessment was completed by telehealth coordinators and their team at each partner site. CareConnect's Clinical Coordinator reviewed the assessment with each partner through a series of videoconferences. Supporting documentation was developed for each of the tool components – infrastructure and planning readiness, workplace environment readiness, training and educational readiness, and technical readiness. These guidelines were an essential reference resource for sites.
RESULTS: Results provided essential clinical and readiness information about each site and their ability to participate in clinical TH events. The tool also identified readiness gaps. A report of all findings was sent to the senior staff at each site. Information from these reviews was compiled into three spreadsheets that were posted on the CareConnect website.
CONCLUSIONS: The readiness tool was well received by partner sites. A recent THC satisfaction survey showed a high level of satisfaction with coordination and education on clinical coordination. The readiness process has become an important aspect of CareConnect's clinical operations and has strengthened our relationship with each of our partner sites. An annual review will take place in August 2005.

4.02 THE DEVELOPMENT OF A COMMON MULTINETWORK COMMUNICATION TOOL FOR SCHEDULING EDUCATIONAL EVENTS: BRIDGING TECHNOLOGIES, PROCESSES, AND HUMAN RESOURCES

Ridgewell J[1], Dinel G[1], Carter L[2], Timothy V[2], Archambault P[3], Novak G[3].
[1]VideoCare, London, ON. [2]NORTH Network, Toronto, ON. [3]Care Connect, Ottawa, ON.

INTRODUCTION: Ontario's three telemedicine networks--VideoCare, NORTH Network and CareConnect frequently bridge to facilitate educational events that target a provincial audience. Doing this requires combining the technologies and operational scheduling processes of the three networks. The challenges experienced in the coordination of these multi-network educational events prompted the creation of a working group to share and understand the processes used within each network, and to create a common process to improve the efficiency of work and communication among the three networks.
DESCRIPTION: Since November 2004, administrative and scheduling representatives of each network have met regularly to discuss successes and lessons learned following and in preparation for future provincially attended education events.
RESULTS: Ontario's growing demand for educational events delivered by videoconferencing requires the sharing of resources among the networks. It has further resulted in the development of a common communication tool that identifies responsibilities, work-flow process, and other information necessary to schedule and support successful events.
CONCLUSIONS: Use of this tool improves efficiency within and among the networks as well as supports scalability issues related to the scheduling of large, complex multi-network educational events.

4.03 ONCE BITTEN, TWICE SHY: THE RENEWAL OF A REGIONAL TELEPSYCHIATRY PROGRAM

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[1]VideoCare, London Health Sciences Centre, London ON. [2]Regional Mental Health Care, St. Joseph's Health Care, London, ON.

INTRODUCTION: Information technology projects in healthcare often have a high failure rate. The lack of ongoing funding may prevent a project from becoming integrated into a program, making it more challenging for subsequent efforts to be successful.
DESCRIPTION: Initially, funding was received for two separate initiatives as part of the Canada Health Infostructure Partners Program (CHIPP). The first served regional hospital-based sites, while the second provided specialized mental health care services in remote Ontario communities. The province extended ongoing operating funds to support the first project but not the second. After an 18 month gap, efforts started with healthcare providers to rebuild the telepsychiatry program.
RESULTS: During the hiatus, the videoconferencing equipment continued to be used by one healthcare provider to support two weekly clinics. The first six months of concerted effort saw little progress in terms of increased utilization. Much of this time involved rebuilding infrastructure, establishing relationships, and developing a better understanding of the needs of the program. The second six-month period saw a dramatic uptake in overall

system usage. Between 2003-04 and 2004-05, overall usage in the last quarter nearly tripled, from 111 clinical patient encounters, 4 administrative sessions and 2 education events to 282, 13 and 16 events respectively. CONCLUSIONS: Health care providers recognize the benefits of this technology and appear willing to overlook previous attempts that may not have produced the desired results. Building on the first year's successes, additional linkages to provide community-based care are planned.

4.04 e-READINESS IN HEALTHCARE: TOWARDS SUSTAINABLE IMPLEMENTATION OF INFORMATION AND COMMUNICATIONS TECHNOLOGY IN THE DEVELOPING WORLD

Khoja S, Scott RE.
Health Telematics Unit, University of Calgary, Calgary, AB.

PURPOSE: e-Readiness refers to preparedness to implement any program using information and communications technology (ICT). e-Health Readiness refers to preparedness to implement any program using ICT in healthcare. Along with many benefits, e-health interventions threaten to increase the digital divide between communities. This can be mitigated by adopting a process of change facilitated by the prior assessment of e-readiness using properly developed and validated tools. Various e-readiness assessment tools have been developed in different fields, but none have been created to measure e-health readiness in developing countries, where 80% of the world's population lives. Our study addresses this gap.
METHODS: We applied a mixed method study to a) qualitatively develop and assess the face and content validity, and b) quantitatively assess the internal-consistency reliability, of e-health readiness tools for developing countries.
RESULTS: We have developed separate instruments that obtain the perspectives of managers and healthcare providers. The tool for managers contains items under the categories of; core readiness, technological readiness, societal readiness, and policy readiness. For healthcare providers, 'learning readiness' replaces 'technological readiness'. During July and August, these tools are being field tested and validated in primary and tertiary healthcare institutions in both public and private sectors, in two provinces of Pakistan.
CONCLUSIONS: Properly developed and validated tools will allow assessment of e-health readiness, allowing sustainable implementation in Pakistan and, potentially, other developing countries.
ACKNOWLEDGEMENTS: Funding - International Development Research Center; active participation and support - COMSATS Institute of Information Technology, ProtoMed, Telehealth Association of Pakistan.

4.05 THE EXPANDED ROLE OF THE TELEHEALTH COORDINATOR WITH INTEGRATION OF TELEHEALTH SERVICES INTO CURRENT HEALTH CARE PRACTICES: SKILL SETS IDENTIFIED

Adair L.
MBTelehealth, Winnipeg Regional Health Authority, Winnipeg, MB.

PURPOSE: As MBTelehealth moves towards integration of telehealth services into current health care practices, the Telehealth Coordinator roles are expanding to meet the demands of the program and future expansion initiatives. This presentation will provide an overview of the Telehealth Coordinator new skill sets that have been identified to fulfill this role, and how these learning needs are being met.
DESCRIPTION: The integration process has required a new skill set for Coordinators to support this approach within the health care regions in Manitoba. This presentation will compare the previous skills required in a non-integrated environment to those required in an integrated program. It will also identify the process for developing and expanding these identified skills.
RESULTS: Preliminary information about the identified learning needs of the Telehealth Coordinator with the expanded role will be discussed along with the educational opportunities that MBTelehealth has provided the staff in the areas of Program Planning, Change Management, Project Management and Needs Assessment tools to meet these needs.
CONCLUSIONS: A structured process for identifying required skill sets and corresponding learning needs has been an effective tool in supporting telehealth coordinators as their role changes in response to an evolving network environment.

4.06 MANAGED GROWTH STRATEGY: ASSESSING FIT AND ALIGNMENT OF NEW OPPORTUNITIES USING A CRITERIA-BASED APPROACH

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[1]VideoCare, Southwestern Ontario Telehealth Network, London, ON. [2]Richard Ivey School of Business, University of Western Ontario, London, ON.

INTRODUCTION: VideoCare is a regional telemedicine network that connects healthcare providers together across Southwestern Ontario, and province-wide. Rapid growth in the number of new sites and programs combined with VideoCare's fixed (limited) resource allocation seriously jeopardized the sustainability of the network – a challenge facing many telehealth networks in Canada.
DESCRIPTION: Using frameworks and filtering techniques adopted from business, VideoCare refined its value proposition(s), mapped current and future products and services, and finally, segmented the various types of healthcare providers and their environments. A traditional growth matrix was applied to telehealth (healthcare). Growth in telemedicine occurs either through the extension of current services (and products) to new customers, the development of new value propositions to existing consumers, or both. This framework also enabled new products and services to be prioritized.
RESULTS: VideoCare's business (and growth) model consists of three dimensions; namely, services (clinical, education and administrative), four 'care-segments' (hospitals, near-hospitals, clinics/physician offices and

direct to patient) and also core competencies. Current and future (pending) applications were mapped on the growth matrix based on the types of services and care-segments, and whether these were new or existing. Filtering and prioritization of future opportunities was achieved through mapping to seven levers that VideoCare creates value.
CONCLUSIONS: VideoCare's managed growth strategy provides a consistent, criteria-based approach for qualifying opportunities against core competencies and infrastructure that are used to guide decision-making. The growth plan has become an integral tool in both strategic planning and in the allocation of operational and capital resources.

Session 5: Homecare-1

Oral Presentations: 5.01-5.06
Monday, September 26, 2005, 1330-1500
Room: Tache

5.01 PATIENTS' AND NURSES' EXPERIENCES WITH TELEHOMECARE: RESULTS OF A RESEARCH STUDY

Atack, L[1], Duff, D[2].
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PURPOSE: The body of theoretical and evaluation literature is growing regarding the benefits of using telehomecare (THC) in the delivery of community-based health care in Canada. However, to date there have been relatively few long term empirical studies conducted. The East York Toronto Telehomecare program has been in operation for more than two years, with over 100 patients enrolled and almost 1500 telehomecare visits made. THC is delivered using a video-based system and patients have access to Telehealth Ontario for after hours care.
METHODS: A research study, using surveys and in-depth interviews, was conducted to explore patients' and nurses' experiences with telehomecare. Our presentation will focus on findings from the qualitative data (n = 25 patients, n = 5 nurses.
RESULTS: The majority of patients were highly satisfied with THC. They reported the video connection to clinicians and vital signs monitoring helped them feel more confident, assisted decision making, reduced hospital admissions, and enhanced health related quality of life. Nurses' experiences were mixed. Nurses felt the quality of care delivered was high and relationships with patients were comparable to face- to- face visits. The impact on THC on work flow and processes, however, was disruptive at some sites.
CONCLUSION: Telehomecare is an emerging tool that has proven useful for facilitating transition from hospital to home, promoting disease self-management in chronic illness, and enhancing patients' quality of life. Organizational readiness and integration with workflow are important areas to address in the planning stage.

5.02 TELEHOMECARE IN EAST YORK TORONTO: TESTING IMPLEMENTATION MODELS

McCulloch T[1], Atack L[1], Duff, D[2].
[1]Health Sciences, Centennial College, Toronto, ON.
[2]Faculty of Nursing, York University, Toronto, ON.

INTRODUCTION: Innovations in the provision and integration of primary health care services are needed to decrease costs to the health care system and improve health outcomes for individuals living with chronic disease, by providing ongoing care in a cost-effective place: the home.
DESCRIPTION: The East York Toronto Telehomecare team has delivered video-based telehomecare for the past two years. A number of delivery models are currently being tested. THC is currently delivered by community nurses in conjunction with home visits, to patients with COPD, diabetes and heart disease. Hospital staff are delivering THC to ambulatory clinic patients with chronic medical problems and community outreach groups living in supportive housing. The program was supported in year one by CANARIE Inc and support continues through the Ontario Innovation Trust.
RESULTS: The number of patients admitted to the program doubled in the second year and there is presently a waiting list for THC. Over 100 patients have received THC through almost 1500 visits. An online course in THC was developed for staff training and the program will expand in September to include patients undergoing hip and knee surgery. The team is tracking implementation processes and we will highlight the challenges and benefits of the different models of THC we are testing.
CONCLUSION: THC can be used effectively to delivery timely, quality care in a number of health care settings and for patients with a variety of needs. Provider training, program marketing and organizational readiness are critical success factors.

5.03 TELEHOMECARE IN PALLIATION STUDY (TIPS): TECHNICAL TALES OF TORTURE, TORMENT AND TRIUMPH

Beirne G[1], Dreger M[2], Goncharenko D[2], Kirshen AJ[3], Librach L[3], Stern A[4].
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[4]McMaster University, School of Nursing, Hamilton, ON.

PURPOSE: The purpose is to evaluate the impact of home telehealth for palliative patients and their primary caregivers on utilization of service, quality of life, pain and symptom management and satisfaction.
DESCRIPTION: Patients and nurses have high-speed DSL internet connections supporting secure real-time videoconferencing and nurse control of blood pressure and pulse-oximeter measurement.
RESULTS: We needed to integrate a variety of disparate technologies into a coherent environment for secure and robust telehomecare. We encountered surprises, challenges and breakdowns in nearly every aspect of the technology. Commercial hardware and software exhibited bugs. Provisioning of telephone and DSL services were unpredictable. Integration of the pieces into a coherent operating environment proved difficult when commercial hardware did not fully support standard protocols. In spite of a host of technological failures and device limitations, we successfully established a working, monitorable and maintainable environment to support this important telehomecare application. We have automated configuration and deployment utilities, 24/7 monitoring and Help Desk support via phone and email.
CONCLUSIONS: Integration of new technology into innovative configurations is a challenging task, and inevitably reveals unexpected behaviour. It requires a test-

bed environment to evaluate hardware, software and integration issues early in the process. It is not sufficient to assume that equipment will integrate well simply because each individual piece is reliable. In a telehomecare environment, where technology is widely distributed into homes and institutional environments, the consequence of even minor technical irregularities can have severe negative consequences on the patients' perception of quality of care.

5.04 UNE EXPERIENCE DE TELESURVEILLANCE AVEC DES MPOC AU SERVICE REGIONAL DE SOINS A DOMICILE DE MONTREAL

St-Jules D, Gauthier M.
Service Régional de Soins À Domicile pour les malades pulmonaires chroniques de Montréal - Hôpital Maisonneuve-Rosemont, Montréal, QC.

INTRODUCTION: Notre étude documente l'impact d'un service de télésurveillance de pointe sur des patients atteints de maladies pulmonaires obstructives chroniques en le contrastant avec les meilleures pratiques de visites à domicile d'infirmières spécialisées. Les objectifs étaient de vérifier la faisabilité pour ce type de patients dans les phases avancées de la maladie, d'évaluer les impacts sur les hospitalisations, les visites à domicile, les communications téléphoniques. La satisfaction des usagers et des professionnels a aussi été évaluée ainsi que la faisabilité économique d'un déploiement à grande envergure.
DESCRIPTION: Vingt patients nouvellement inscrits au Service Régional de Soins à Domicile ont participé au groupe expérimental et utilisé la technologie de Technologie New IT. Dix patients appariés ont été retenus pour des fins de comparaison et ont reçu le programme régulier de visite à domicile. Le cheminement et les mesures de chaque patient ont duré 6 mois.
RESULTATS: Les données du groupe télésurveillé révèlent une diminution du nombre d'usagers hospitalisés (89.4%), du nombre (88.3%) et de la durée totale d'hospitalisation (80,3%). Le nombre de visites à domicile requises par les usagers a diminué de 59,8% bien que la durée des visites ait augmenté marginalement. Le nombre et la durée des appels téléphonique ont augmenté ce qui est cohérent avec une intervention à distance. Les usagers et les professionnels se sont montrés très satisfaits de l'expérience de télésurveillance.
CONCLUSION: Les effets observés supportent un déploiement à plus grande envergure et l'affinage des modes d'intervention pour encadrer le retour à domicile et l'habilitation les patients face à leur pathologie.

5.05 CAN HOME TELEHEALTH TECHNOLOGY SUPPORT DISEASE MANAGEMENT IN ASTHMA TEENS?

Cai P[1], Hebert M[1], Cowie R[2], Meadows L[3].
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PURPOSE: To explore the role of home telehealth technology in teens' asthma management.

METHODS: Multiple case study. We identified six female teens aged 14 to 16 years at the Asthma Clinic at Alberta Children's Hospital. Semi-structured interviews were conducted with the teens, their parents, and their health care providers before and after they used the CareCompanion® for 3 months. Participants were asked to describe their asthma management experience with and without the CareCompanion®. Interviews were recorded and transcribed verbatim. Social cognitive theory was used as a conceptual framework to guide thematic data analysis.
RESULTS: Five themes were identified: Usability of Technology, Using Technology, Technology and Personal Factors, Technology and Environmental Factors, and Technology and Behavioral Factors. The role of technology was influenced by asthma teens' self-management behavior and disease status without the technology. Usability of technology also influenced the effect and use of the technology.
CONCLUSIONS: A revised conceptual framework based on Social Cognitive Theory and Technology Acceptance Model was developed. Aspects of the CareCompanion® for improvement were highlighted. Clinicians should determine which asthma teens are more likely to benefit from use of the technology.

Session 6: Policy Issues

Oral Presentations: 6.01-6.06
Tuesday, September 27, 2005, 0830-1000
Room: Gateway

6.01 DEVELOPING A CANADIAN TELEHEALTH ACCREDITATION PROGRAM: A CCHSA INITIATIVE FOR HEALTH CARE ORGANIZATIONS

Zawadski, D.
National Market Development Department, The Canadian Council on Health Services Accreditation, Ottawa, ON.

INTRODUCTION: The Canadian Council on Health Services Accreditation (CCHSA), a national accreditation organization for health services, in collaboration with funding partner Canada Health Infoway (CHI), is in the process of developing a national telehealth accreditation program for health care organizations offering telehealth programs.
DESCRIPTION: Drawing on the research completed during the National Initiative for Telehealth Guidelines (NIFTE) project and under the direction of a National Advisory Committee, CCHSA will complete the development of a national telehealth accreditation program by January 2006.
RESULTS: Health care organizations across Canada are challenged to integrate telehealth services and programs within existing models and are looking for guidance on how best to deliver these services. Recognizing that telehealth should not be viewed as a new health care service, but rather a new way of offering existing health care services to the public, CCHSA is developing a telehealth supplement that integrates telehealth criteria throughout the structure of its national accreditation program. The third draft of the telehealth supplement will undergo pilot testing and a national consultation effort for review and feedback during the fall of 2005 before its release.
CONCLUSION: CCHSA will make available to health care organizations across Canada, a national telehealth

accreditation program to assist with the development and evaluation of their telehealth programs on a national level.
ACKNOWLEDGEMENTS: CCHSA would like to acknowledge the support of the National Telehealth Advisory Committee, Richard Ivey Foundation and CHI in bringing this project forward.

6.02 POSTCARD FROM AN ACCREDITATION JOURNEY: THE CCHSA TELEHEALTH PROVIDER ACCREDITATION EXPERIENCE

Youell P.
Telehealth Programs and Services, Royal Ottawa Health Care Group and University of Ottawa Northern Ontario Francophone Psychiatry Program, Ottawa, ON.

INTRODUCTION: The Royal Ottawa Health Care Group (ROHCG) welcomed the invitation from CCHSA to test the integration of new Accreditation Standards for Telehealth service providers.
DESCRIPTION: The 30 Telehealth-specific criteria are thematically organized according to Service Delivery, Leadership and Partnerships, Human Resources, Environment and Information Management. The exercise focuses on 116 specific issues for assessment. Each criterion is fully integrated into the existing CCHSA standards and tied to the quality framework. Our self-assessment exercise began in January 2005. The participative process and documentation lasted five months. The final report was submitted to CCHSA in July and the surveyor team will visit the ROHCG for tours and interviews in October 2005.
RESULTS: The corporate self-assessment exercise identified 52 areas or tasks for improvement. It has revealed the program's strengths and exposed blemishes. Following the surveyor visit the Telehealth team and committee will analyze the results and will be rewarded with an awareness of the programs strengths, weaknesses, and possess a comprehensive list of the strategic priorities that will be placed on the telehealth agenda for the future.
CONCLUSIONS: The hopes of the CCHSA and ROHCG were that the integration of Telehealth specific criteria into the Accreditation process would foster service integration. This pilot project experience created momentum toward that goal, but this organization may not realize full seamless integration until the 2008 CCHSA assessment. The stories behind our experience with this pilot project should benefit CCHSA and all Telehealth service providers anticipating their own Telehealth accreditation journey.

6.03 NEW BRUNSICK STRATEGIC PLAN FOR TELEHEALTH

Bosca S
on behalf of the NB Telehealth Working Group, Bathurst, NB.

INTRODUCTION: Health providers and payers are increasingly looking for innovative means to sustain Canada's publicly funded health care system. Telehealth offers a viable alternative to the traditional delivery of health services. New Brunswick's Strategic Plan for Telehealth sets an ambitious direction to fully integrate telehealth into the mainstream health system to fulfill the vision of "Telehealth: Bridging distances by bringing quality health services and information to all New Brunswickers".
DESCRIPTION: Through input from over 150 stakeholders and an environmental scan which identified predominant trends and issues influencing telehealth, this five year plan is designed to improve access to services, comprehensiveness and continuity of care, and the recruitment and retention of health human resources. Healthy Futures, New Brunswick's Provincial Health Plan 2004-2008, is the primary driver for this strategic plan. The strategic priorities identified in the NB Health Plan, present several opportunities for telehealth to enable, support and accelerate the recommended changes.
RESULTS: Five strategic directions were identified: population health, integration into the continuum of care, infrastructure, continuing education and change management. Priority actions were articulated and supporting frameworks (governance, funding and evaluation) were developed. A consensus for a common Telehealth strategy was realized amongst the 8 regional health authorities and the DHW. The plan was approved by the Office of eHealth.
CONCLUSIONS: This strategy builds on New Brunswick's current investments, experiences and best practices in telehealth, in proposing solutions for greater equity across Regional Health Authorities (RHAs).
ACKNOWLEDGEMENT: The Telehealth Working Group acknowledges funding support from Canada Health Infoway.

6.04 FROM VISION TO REALITY: IS E-HEALTH IN CANADA WHAT IT WAS INTENDED TO BE?

Chouinard I, Scott RE.
Global e-Health Research and Training Program, Health Telematics Units, University of Calgary, Calgary, AB.

INTRODUCTION: Since the early 1990's many policy documents have been developed that address the application of Information and Communications Technologies (ICTs) in health and healthcare in Canada – i.e. e-Health (Telehealth + Health Informatics). Early documents from CANARIE, IHAC (Information Highway Advisory Committee) and others (e.g. Connection, Community, Content: The Challenge of the Information Highway - Final Report of the Information Highway Advisory Council; Telehealth in Canada: Clinical Networking, Eliminating Distances) set our direction. Now nearly 10 years later, are we meeting the vision?
METHODS: Federal e-health policy related documents were critically reviewed. Identified goals and recommendations for the adoption and implementation of e-health were extracted and compared to the current status of e-Health in Canada.
RESULTS: This student summer research study is nearing completion. Results are anticipated to reveal a misalignment between initial goals for the inclusion of e-health in health care and current status. The significance of any misalignment will be assessed.
CONCLUSIONS: This study will provide perspective on the presence or absence of a logical and structured progression in Federal e-health strategy. It will provide a retrospective analysis of the current state of e-health in Canada in the context of the strategic direction established in the early 1990s, along with a discussion of future implications of these findings.

6.05 INFORMED CONSENT FOR VIDEOCONSULTATIONS IN CANADA: TOWARDS RECOMMENDATIONS USING THEORETICAL, LEGAL, AND PRACTICAL PERSPECTIVES

Chouinard I, Scott RE.
Global e-Health Research and Training Program, Health Telematics Units, University of Calgary, Calgary, AB.

INTRODUCTION: Videoconsultation is a growing component within and across telehealth networks throughout Canada. Existing recommendations for the process of informed consent in videoconsultations are helpful only in the context of the absence of other useful guidelines. Current guidance is reactive to this deficit of important and relevant knowledge required to make fully informed recommendations, and is therby representative of the lack of knowledge on the subject. A research project is being undertaken to clarify the issue of informed consent in videoconsultation.
METHODS: This Master's research project is exploring several components that will inform the process of informed consent in Canada. These components are: 1) the status of videoconsultations in Canada, 2) the distinction between research and practice in e-health, 3) the concept of "routine care" in e-health, and 4) the Provincial legislation and policies surrounding informed consent and videoconsultations. The project methodology involves a multi-level comparative case study of Canada, based on the Canadian Provinces and Territories as well as selected Health Regions, and data will be collected through document analysis and interviews.
RESULTS: The project is currently in progress. The rationale, methodological approach, and preliminary results of the interviews and document analysis will be presented.
CONCLUSIONS: It is anticipated that the information gathered by this study will provide a basis for formulating evidence-based recommendations for the process of informed consent for videoconsultations in Canada.

6.06 TELEHEALTH AND INFORMED CONSENT REVISITED: DO PATIENTS STILL NEED TO SIGN ON THE DOTTED LINE?

Lynch J.
The Ottawa Hospital, Telehealth & AV Services, Ottawa, ON.

INTRODUCTION: Many provider organizations require patients to sign informed consent forms prior to receiving health care services mediated by telehealth technology. At the same time, Telehealth Coordinators are expected to play an advocacy role in patient care. This includes informing patients of the various alternatives for treatment and relative risks and benefits of each.
DESCRIPTION: While obtaining informed consent is not new in health care, what is different is the requirement that patients provide their signature prior to receiving non-urgent elective health care services. Is this necessary, or, is a patients' presence at a telehealth session a form of implied consent and therefore sufficient? Is this practice evidence that telehealth still has some distance to go before being fully integrated in to health care or just good business?
RESULTS: In this presentation, the author reviews the latest evidence and practices in the use of signed informed consent for telehealth.
CONCLUSION: Reasons for and against obtaining a patient's signature prior to providing non-urgent elective health care services by telehealth will be presented and discussed.
ACKNOWLEDGEMENT: The author would like to acknowledge the advice and support of the Telehealth Steering Committee at The Ottawa Hospital.

Session 7: Research and Evaluation-2

Oral Presentations: 7.01-7.06
Tuesday, September 27, 2005, 0830-1000
Room: La Verendrye

7.01 TELEHEALTH AND RURAL MEDICAL PRACTICE: A SURVEY AMONG ALBERTA PHYSICIANS

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PURPOSE: The potential of telehealth to support medical practice in rural and remote regions has often been advocated but we know little about its actual impact on physician recruitment and retention, satisfaction at work, and continuing professional education and development. This study aimed to assess the potential influence of telehealth on physicians' location in rural practice as well as their perceptions towards various telehealth dimensions.
METHODS: We conducted a survey among rural and remote physicians of Alberta. We translated and adapted the questionnaire from a similar study that took place in Quebec. The questionnaire contained 41 questions covering telehealth experience and perceptions as well as sociodemographic information. We mailed the questionnaire to a total of 1324 physicians practicing in designated rural areas from all Alberta health regions.
RESULTS: To date 126 questionnaires have been returned. Preliminary analyses indicate that physicians generally perceive positive telehealth impacts on their practice (increased confidence, improved education, decreased isolation). Further analyses will allow verifying to what extent telehealth can have an effect on physician attraction and retention in rural practice.
CONCLUSIONS: Telehealth may have an important impact on work satisfaction, professional development, and knowledge transfer and uptake. These factors are key elements that influence physician recruitment and retention. However, telehealth alone is unlikely to solve physician shortage in rural and remote areas. Moreover, there are many challenges that need to be addressed to ensure the full integration of telehealth as a tool to support medical practice in rural and remote regions.

7.02 PROFESSIONAL PRACTICE STANDARDS AND RESEARCH ETHICS IN TECHNOLOGY-BASED HEALTHCARE PROGRAMS PROVIDED TO PATIENTS IN THEIR HOMES

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PURPOSE: The aim of this project was to ascertain whether e-health intervention programs delivered to adults in their homes meet the same professional practice and ethics standards that apply in face-to-face health service delivery.
METHODS: A systematic review of studies of technology-based health care interventions delivered to adults in their homes was conducted to identify the frequency of reporting of adherence to professional practice and research ethical codes of conduct. Key databases were searched to yield 2866 abstracts that were independently rated by two reviewers using inclusion-exclusion criteria, resulting in 107 articles that were then reviewed for reports of practice standards and research ethics.
RESULTS: The results showed that the overall reporting of adherence to professional practice standards in e-health environments and the use of research ethics procedures was low. For example, the majority of studies (70%) did not report using safeguards (encryption, firewalls) for protecting client information when providing internet-based interventions. Research ethics most commonly reported were informed consent and REB/IRB approval. When reported, adherence to practice standards included pre-intervention training of clinicians, use of intervention protocols, supervision, and mechanisms for risk management were most common.
CONCLUSIONS: Clinical implications are discussed in terms of professional responsibility for providing evidence-based interventions to adults whether in a face-to-face clinical environment or via the use of various forms of technology and particularly the internet. Examples of professional practice standards-maintenance strategies used in a series of studies of internet, video-conferencing support programs for family caregivers of persons with chronic disabilities are discussed.

7.03 HOME IS WHERE THE HEART IS: CARDIAC REHABILITATION EDUCATION FOR RURAL NORTHERNERS

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INTRODUCTION: Cardiac Rehabilitation (CR) reduces death rates, incidence of a second heart attack, hospitalizations and need for cardiac procedures. Traditional CR programs capture only a small portion of the eligible population that would benefit from such services. An innovative approach has been implemented to provide patients and their families throughout Northern Ontario with CR education via videoconferencing.
METHODS: Two CR Programs in Sudbury & Thunder Bay each delivered comprehensive multi-disciplinary sessions to their respective regions. NORTH Network sites from each region were invited to promote the sessions throughout their communities. Data were analyzed to determine participant rates, patient and presenter satisfaction. Traditional SWOT analysis was completed.
RESULTS: Three series were delivered throughout Northern Ontario. Twenty-four sites (178 people) have received education using the technology. All presenters agreed videoconferencing is an effective method to reach patients in rural, remote, under-serviced areas; and, all would be willing to deliver future sessions. Participants were “interested, engaged and actively included” in the teaching and learning process and all reported the technology as useful in delivering the program.
CONCLUSIONS: Attendees and presenters were highly satisfied with the modality. Future sessions will be delivered in 2 hour blocks as opposed to half or full day sessions. Videoconferenced CR Education is a valid and relevant method of reaching rural, remote and under-serviced areas of Northern Ontario. It is an innovative method of providing post-cardiac clinical care to patients, impacting positively on the management of their chronic illness.

7.04 HEALTHCARE PROFESSIONALS' PERSPECTIVES ON TELEHEALTH IN RURAL FIRST NATIONS CARE

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PURPOSE: To identify the potential impact of telehealth for healthcare professionals working in rural and remote British Columbia First Nations communities.
METHODS: Healthcare professionals completed surveys, as well as participated in focus groups and interviews. Survey data were analyzed to compare responses from various health professions (e.g., physicians, nurses, health administrators). Content analysis was performed on interview and focus group transcripts to extract themes.
RESULTS: Survey results indicated that healthcare professionals generally want access to telehealth services that are not currently available in their communities. Focus group participants felt strongly that telehealth has the potential to mitigate some issues faced by those working in rural and remote First Nations communities, namely: lack of decision support, lack of continuing education, acute care service shortfalls, and lack of continuity of care. Participants felt that addressing these issues would result in direct benefits to both healthcare professionals and other community members. Participants also expressed apprehensions about telehealth, including: concern about decreased quality of care, reduction of opportunities to travel outside the community for educational purposes, availability of funding to cover the high cost of telehealth, and the lack of both human and technical resources necessary to sustain telehealth.
CONCLUSIONS: Telehealth has the potential to alleviate some of the challenges faced by healthcare professionals working in rural and remote First Nations communities, particularly in the areas of education and decision support. The success of sustainable telehealth implementation is dependent on overcoming significant barriers such as lack of funds and technical expertise.

7.05 NL TELEONCOLOGY PROGRAM: DOES THE LITERATURE PROVIDE EVIDENCE TO JUSTIFY THE PROGRAM?

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PURPOSE: To review the telehealth literature considered relevant to the Newfoundland and Labrador Teleoncology Program (NLTOP) and to summarize, as succinctly as possible, key findings related to the (NLTOP) Evaluation Framework benchmarks (cost, access, acceptability and quality).
METHODS: Using databases and general web searches, key words included: teleoncology; telemedicine; telehealth; patient satisfaction, cost, access, acceptability and quality AND evaluation, outcomes and results. A large bibliography was compiled and reviewed. References were selected for analysis by their perceived relevance to the key indicators in the NLTOP evaluation framework.
RESULTS: The vast majority of the articles reviewed came from two sources, Telemedicine and e-Health and Journal of Telemedicine & Telecare. Very few studies used standardized instruments, appropriate statistical analysis, and other methods needed to enhance the reliability and generalizability of their findings. Cost studies, in particular, generated considerable concern about lack of rigour, methodology, and lack of generalization of this critical public policy issue. The current literature is highly qualitative and usually indicative of issues that need more exploration.
CONCLUSIONS: Articles included in the review vary in the degree to which they directly relate to NLTOP's indicators and/or in the degree to which their findings can provide guidance to NLTOP or any other telehealth stakeholder. There are a number of telemedicine projects being undertaken that warrant NLTOP team keeping a watch for articles that they generate. Given the weaknesses in the published literature, the use of well designed instruments will position NLTOP to make a contribution to the telehealth literature.

7.06 EYE CONTACT AND THE PROVIDER – PATIENT RELATIONSHIP. AN EVIDENCE-BASED ANALYSIS OF EYE GAZE TO SUPPORT BEST TELEHEALTH PRACTICE

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INTRODUCTION: Eye contact is considered to be fundamental to non-verbal communication during therapeutic relationships. Researchers at a large academic health sciences centre set out to determine whether the angle created by the position of the camera, the clinician, and the videoconferencing monitor affected patient perception of eye contact.
DESCRIPTION: Still image pairs were captured of persons' faces at differing angles relative to the videoconferencing camera and screen. Participants were shown these facial image pairs in different videoconferencing environments. Both quantitative and qualitative data was obtained regarding their preferences.
RESULTS: Two eye gaze angles were compared and evaluated by the participants (n = 53). Of the 636 evaluations completed, 554 (87.1%) indicated better eye contact at an eye gaze angle of 7° (CI = 84.5% - 89.7%) rather than at 15°. Qualitative analysis revealed common themes regarding the importance of eye contact to the participants, such as the area of the person's image in relation to the overall screen.
CONCLUSION: An eye gaze angle of 7° provides a preferred configuration for viewers. Telehealth consultants can enhance communication and facilitate establishment of the therapeutic relationship by applying this improved understanding of eye contact during videoconferencing. Consequently, the results of this study will form the basis of best practice guidelines for Telehealth at our institution.

Session 8: Sustainability and Integration-2

Oral Presentations: 8.01-8.06
Tuesday, September 27, 2005, 0830-1000
Room: Salon AB

8.01 CAN TELEHEALTH INTEGRATION IN THE CORRECTIONS SECTOR CONTRIBUTE TO CANADIAN HEALTH CARE REFORM AND RENEWAL?

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INTRODUCTION: Corrections telehealth, while pervasive in the United States has not been widely adopted in Canada. Following a successful video-remand project in Ontario, the Ministry of Community Safety and Correctional Services and NORTH Network established the first telehealth studios in two Canadian correctional facilities.
DESCRIPTION: Using video-remand standard videoconferencing platforms, NORTH Network standard medical peripheral devices and a collaborative approach to technical support services, inmates at the Monteith Correctional Complex, in a remote northern community outside of Timmins and at the Central East Correctional Facility, in rural Lindsay, have had access to specialists in distant regional and urban centres. Attention to studio safety provisions, protocol revision, and implementation of a communication strategy have been critical to the project.
RESULTS: The initiative, launched in September 2003 supports both clinical consultations for inmates and educational opportunities for corrections health care professionals. The initiative permits inmates requiring methadone to be admitted to Monteith as telehealth provides the necessary medical supervision. Factors adversely influencing uptake include lack of existing telehealth infrastructure in Central East Ontario, the limitation of the pilot to elective rather than emergency applications, and the transient nature of the inmate populations at the two pilot sites.
CONCLUSIONS: With supportive infrastructure including emergency services and broadening availability to additional sites, it is thought that there is a potential for

significant system enhancement. Corrections telehealth has the potential to enhance community safety, to increase access to healthcare services and possibly decrease costs to both the corrections and health care systems.

8.02 RUNNING THE CLINICAL TELEHEALTH GAUNTLET: FROM CONCEPT TO PILOT TO INTEGRATED PROGRAM - CAPITAL HEALTH'S SUCCESS STORY

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Capital Health Regional Telehealth Department, Edmonton, AB.

INTRODUCTION: With a referral base extending throughout Central and Northern Alberta, NT, BC, SK, YK and NU, the opportunities for efficient and effective clinical telehealth programs are significant. Proven by the number of clinical telehealth grants existing throughout Canada, the health industry has accepted the concept of telehealth supporting traditional clinical programming. However, the challenge lies not in concept validation, but in integration where proven projects seek sustainable funding.
DESCRIPTION: To prepare for the eventual question of sustainability, Capital Health united clinical specialists with regional telehealth experts during the concept and pilot development stages. This ensured any clinical concept would meet a minimum level of efficiency and effectiveness in the clinical, administrative and technical fields. While each project was clinically independent, the Regional Telehealth Department acted as a central administrator to ensure all resources and technical requirements were met in a timely and efficient manner. The benefit to this central administration of operations was that consolidated project resources (HR, technical, etc) could be reallocated as required.
RESULTS: Over the past three years, Capital Health has successfully developed telehealth programs for no less than eight clinical subspecialties. A further seven projects are currently in the pilot project phase with the full expectation of integration into sustainable programs within two years.
CONCLUSIONS: Through comprehensive preparation, strong clinician support and a centralized administrative department, Capital Health has found the answer to running the clinical telehealth gauntlet.

8.03 PROJECT TÉLÉSANTÉ MANITOBA

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MBTelehealth, Winnipeg Regional Health Authority, Winnipeg, MB.

INTRODUCTION: Project Télésanté Manitoba represents a unique initiative, which proposes to expand the MBTelehealth network into nine francophone communities in the province (eight rural sites and one urban site), all connected through the existing MBTelehealth network. Two of the proposed sites are historic Aboriginal and Métiche communities in Manitoba. Services offered will include clinical consultations, case conferencing and continuing education for doctors, nurses and all other medical personnel.
DESCRIPTION: The initial phase of the project includes the development of a charter, a budget and a program plan. MBTelehealth, in partnership with five Regional Health Authorities in Southern Manitoba, will proceed with implementation and integration of all telehealth services within the designated sites.
RESULTS: Telehealth will provide increased access to health services in French in the identified communities, as well as an extension of the project scope beyond the Manitoba boundaries to other French communities such as the University of Sherbrooke and Ottawa. The initiative will also increase the feasibility of providing French language community-based services, such as public education, by providing service agencies with access to a larger population.
CONCLUSIONS: Francophone Manitobans, who traditionally have had to travel to St. Boniface to access French language health services, will now be able to access services without travel. For francophone communities situated outside of Quebec, the increased interaction with national and international francophones constitutes a considerable advantage for the recruitment and retention of francophone health professionals who have chosen to establish their practice in Manitoba.

8.04 A SCALABLE MIDDLEWARE SERVICE ARCHITECTURE FOR MOBILE MEDICAL APPLICATION

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INTRODUCTION: Wireless technology has the potential to provide significant benefits to the health care industry. Mobile medical applications empower the health care providers with right data, at the right time of treatment, and eliminate inefficiencies and time delays in the patient management process. Our goals are to development a software tool for wireless patient data entry into EMS/hospital servers and also retrieve vital patient info. The proposed architecture is developed such that interfaces and agents can be just plugged in and out of the middleware (scalable), to suit the application. Since the mobile industry is moving towards all IP network, Code Division Multiple Access (CDMA) network supporting IP traffic, is selected for running this application.
DESCRIPTION: This architecture facilitates automating tasks in mobile agents with user convenient interfaces and connections. The tasks include: mobile data entry, mobile database management, transfer of voice and data, store and forward techniques to handle connectivity issues and signal strength handling for performance monitoring. The above functions are implemented in the middleware of the EMS application.
CONCLUSION: This project supports the initiatives of the Atlantic Health Services Corporation and Canadian Society of Telehealth, to provide timely health care to the people.
ACKNOWLEDGEMENT: This project is the joint effort by EMS of Saint John, Mobile Quality Health Services Research Agency, and The University of New Brunswick, and in its early stages of design and development; funded by Atlantic Health Sciences Corporation, New Brunswick Innovation Fund and NSERC.

8.05 SUPPORTING TELEHEALTH FROM A DISTANCE: THE DEPLOYMENT OF MOBILE TOOLS FOR MOBILE WORKERS

Heise M, Loewen L.
MBTelehealth, Winnipeg, MB.

INTRODUCTION: The Province of Manitoba covers 649,950 sq. km with the MBTelehealth Network providing interactive videoconference services to 26 locations across the province. A total of 16 Telehealth Coordinators, dispersed across the province, work directly for the network and travel as needed to support integrated regional telehealth services. Effective communication is essential for maintaining competency, engagement, and ensuring rapid response to operational issues. Traditional location based tools such as desktop phones and personal computers are restrictive. To maximize productivity and accommodate the mobile nature of the coordinator role, the network recognized the need for mobile tools.
DESCRIPTION: The Network is deploying various technologies to increase information access while decreasing the dependency on paper-based information flow. Technologies include: blackberry handheld devices, lightweight mobile laptops, and multipurpose units used to capture and store documents electronically, including faxes. Shifting to 'in time' and paperless communications has required a project management approach with careful attention to: change management, solution selection, end user training, helpdesk staff training and vendor relationships.
RESULTS: The shift to mobile technologies is over 75% completed. Positive benefits to date include: increased data communication, centralized use of the multipurpose unit, and maximized in-transit productivity through laptop devices. Challenges have included: staff training, building confidence in paperless communication and storage and the workload for technical support, particularly during deployment.
CONCLUSION: Mobile tools have improved communication but require careful selection and planned deployment. This presentation will provide lessons learned and future directions.

8.06 RESPONDING TO THE NEED: CARECONNECT'S INTEGRATED SYSTEM FOR THE MANAGEMENT AND DELIVERY OF TELEHEALTH SERVICES

McVey K.
CareConnect, Ottawa, ON.

INTRODUCTION: Faced with a rapid increase in the type and volume of services required by its partners, CareConnect commissioned a study address the design and build issues pertaining to the automation of session operations. The study concluded that a federated approach to integrating commercially available functional components would provide the network with a simplified means of coordinating, scheduling, reviewing and reporting all activities while avoiding the cost and delays common to custom development projects.
DESCRIPTION: Several methods of investigation and analysis were combined in the study to determine the optimal technological implementation for the Operations Management System. Some of the methods included: feedback surveys, user scenario analysis, requirement review, functional specification and final architecture. Unique variables to consider included the real need to provide services in a bilingual environment and the need to scale the system to meet the rapidly growing demand.
RESULTS: The study showed the need for:
- a simple document transfer management system to eliminate fax and courier of patient records between facilities.
- easy, anywhere access to telehealth information via a personalized web interface.
- a centralized calendar for accessing and registering to open educational events.
- a reduction in the coordination efforts between telehealth coordinators via one simple messaging tool.
- flexibility in the scheduling system to provide physician clinic availability and bookings.

CONCLUSIONS: A telehealth network operations management system is critical to the growth and management of any telehealth network. The system is expected to have a large impact on clinical outcomes, work patterns and more efficient use of resources, overall improving the network efficiency.

Session 9: e-Learning-2

Oral Presentations: 9.01-9.06
Tuesday, September 27, 2005, 0830-1000
Room: Tache

9.01 REDEFINING THE POSSIBLE – USING TELEHEALTH TECHNOLOGY WITHIN A MULTIMEDIA E-LEARNING INITIATIVE

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Telehealth Program, University Health Network, Toronto, ON.

INTRODUCTION: Videoconferencing has traditionally been used in e-learning programs for didactic educational sessions. In September 2004 a twelve month pilot project was launched by Telehealth specialists and gastroenterologists at a multi site university based program to test our hypothesis that videoconferencing combined with a web based resource is an effective medium for multidirectional knowledge transfer, debate and remote mentoring.
DESCRIPTION: A comprehensive SWOT analysis was conducted which led to an ongoing e-learning initiative using twin strategies. Firstly, the gastrointestinal publication and case review meetings were broadcast by live videoconference. Secondly, an e-learning web resource was created to provide information about upcoming educational events, enable access to recent presentations, and house a collegial discussion forum. Technical and operational issues during the evolution and growth of the pilot study were addressed as they arose.
RESULTS: Participants reported high levels of satisfaction with the medium. Mean attendance by physicians at the weekly journal club rose from 6 to 22 attendees, during the first 9 months of the ongoing project. The meetings' virtual sites have expanded both nationally and internationally. Insights that have been gained into creating successful Telehealth e-learning initiatives will be shared.
CONCLUSION: Multimedia e-learning via Telehealth can provide an excellent way to enhance access to professional education, mentoring and collegial networking beyond the physical confines of an academic health care institution. This presentation will highlight the findings of the pilot project as well as future plans for using alternate communication technologies and redefining the target audience.

9.02 CONSIDERATION OF COGNITIVE, SOCIAL AND TEACHER PRESENCE IN EVALUATION OF E-LEARNING

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INTRODUCTION: Traditionally, e-learning evaluation asks questions such as whether the course objectives were met – much the same as for a classroom setting. With increasing expectations for these technologies, research in other disciplines like educational technologies may help understand why e-learning is, or is not, successful and how projects can be sustainable.
DESCRIPTION: Two very different e-learning projects will be compared using Garrison's perspectives of cognitive, social and teacher presence, which are necessary for effective learning. The first is a five year national project to deliver graduate training in Health Informatics. It has used a variety of web-based e-learning modalities and evaluation strategies during the project. The second is a relatively new project in hospice palliative care that uses videoconferencing and a case-based approach to learning.
RESULTS: Cognitive presence is achieved relatively easy because learners are interested in the content material and participate voluntarily. Teacher presence has been less successful in web-based projects. Learners want and need to engage with their instructors in on-line discussions. In the videoconferencing example, roles of learner and instructor continually change as sites take turns presenting and discussing clinical cases. Here the moderator plays an important role in creating teacher presence. While social presence is more difficult to achieve when there is no visual contact, it is possible.
CONCLUSIONS: Increased sophistication in understanding why e-learning activities are effective is required to support continued use and sustainability. It also sheds new light on how to better use, and evaluate use of, the technology.

9.03 VIDEOCONFERENCING SUPPORT OF RURAL/NORTHERN TRAINING ROTATIONS IN PSYCHIATRY IN ONTARIO

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INTRODUCTION: A major barrier for rural family or general physicians considering "re-entry" specialty training, is the need to relocate to an urban centre for several years of residency. This impediment can be reduced by providing blocks of core and selective training nearer to rural physicians' home communities, augmented with videoconferenced teaching with urban-based university faculty.
DESCRIPTION: Beginning in 2000, the University of Toronto Department of Psychiatry and its rural partners have developed core and selective rotations in psychiatry in three Northern Ontario Communities. While the training is primarily supervised by designated local faculty, videoconferencing has also been critical to the success of this program, linking remote residents to seminars, rounds and sub-specialized supervision (eg. in specific modes of psychotherapy), and to their peers, the resident organization and the departmental postgraduate office.
RESULTS: Since 2000, 4 Northern Ontario physicians have taken advantage of these re-training opportunities in psychiatry, in some cases spending over half their residency in their home communities. Two have already returned to their communities to practise, while the other two are still training. Four non-re-entry residents also sampled these 6-month blocks of rural training, and we collaborated with the Northern Ontario School of Medicine in supporting their first psychiatric residency position. Together these trainees have received up to 300 hours per year of videoconferenced training and supervision.
CONCLUSIONS: Videoconferencing contributed to the development of unique rural training opportunities in psychiatry, overcoming geographic barriers to learning, which have already impacted on the supply of rural specialists in Ontario.

9.04 INFORMATION AND COMMUNICATION TECHNOLOGY IN UNDERGRADUATE MEDICAL EDUCATION: PREPARING FUTURE TELEHEALTH USERS

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INTRODUCTION: It is widely recognized that a well-managed clinical interview lays the ground for a successful diagnosis and necessary treatment/management of a patient's condition. Effective communication skills during history taking are important success factors in determining a diagnosis. History taking via videoconferencing offers further challenges for physicians. Excellent communication skills play an even more important role in obtaining a medical history when using telehealth
DESCRIPTION: This paper describes innovative history taking teaching methods used at the Paul B. Centre for Medical Education at the University Health Network.
RESULTS: Eight examination rooms function as recording studios and allow interactions between medical students and standardized patients (SPs) to be digitally captured and securely stored. These recordings can be immediately reviewed by students, tutors and SPs and used to provide formative feedback. Alternatively, the recorded sessions can be retrieved later by faculty and students. Feedback can be very useful in improving medical students' communication and history taking skills. In addition, eight seminar rooms have live audio-video communication to all examination rooms. This will allow models to be developed for undergraduate and postgraduate simulation in telehealth.
CONCLUSIONS: Since telehealth is largely used for clinical consultations, effective communication and history taking skills are crucial in establishing trust between a patient and healthcare professionals, obtaining critical information and making the right diagnosis. Technologies used at the Helliwell Centre will be useful in preparing medical students to improve their communication skills not only for traditional clinical interviews but also for telehealth consultations.

9.05 DEVELOPMENT OF A MULTIDISCIPLINARY TELEHEALTH CLINICAL PROTOCOL

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INTRODUCTION: The Multidisciplinary Osteoporosis Program at Sunnybrook and Women's College Health Sciences Centre recently launched a 24-month pilot telehealth program in partnership with two NORTH Network sites. NORTH Network provided consultative expertise to set up the program's telehealth studio and collaborated on the development of a clinical protocol to operationalize the multidisciplinary approach.
DESCRIPTION: The main focus of this project was to develop an effective telehealth program, with a multidisciplinary team of health professionals (physician, nurse, dietitian, physiotherapist, occupational therapist and pharmacist). NORTH Network's role was to assist with implementation of a telemedicine program that mirrors the existing in-person multidisciplinary service. The development of a clinical protocol became an integral component of implementation, providing a framework to improve efficiencies for the patient, consultants and telehealth coordinators.
RESULTS: NORTH Network worked with the Multidisciplinary Osteoporosis Program to develop a clinic model suitable for a telehealth environment. NORTH Network observed and recorded the workflow of an existing clinic to gain a better understanding of the clinic process. Processes were mapped out and then applied to telehealth. This contributed to the development of a comprehensive clinical protocol for telehealth coordinators, which outlined the steps for each phase of the multidisciplinary consultation. The protocol was tested with the telehealth coordinators at all three sites prior to the launch of the program.
CONCLUSIONS: A clinical protocol is an essential tool for telehealth coordinators and is key to the efficient, effective and accurate practice of each telehealth provider.

Session 10: Homecare-2 & Impact of Telehealth on Users-2

Oral Presentations: 10.01-10.06
Tuesday, September 27, 2005, 0830-1000
Room: Provencher

10.01 REMOTE RESPIRATORY AND SWALLOWING SOUND MONITORING SYSTEM

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PURPOSE: To develop a web based system to monitor and analyze respiratory and swallowing sound signals.
METHODS: Currently, respiratory or swallowing disorders are assessed using invasive and/or subjective methods. All methods require a visit to a doctor's office. In our ongoing project, we are developing a system in which respiratory and/or swallowing sounds are recorded by microphones and/or accelerometers in a remote area or at the patient's home. A computer equipped with analog to digital converter card digitizes the sound and communicates digitized signal to a data server located at the medical center. Received signals at data server are analyzed by digital signal processing techniques. Swallowing sounds are located and separated from breath sounds using a feed forward neural network. In order to help specialists for a more reliable and objective diagnosis, some features of the respiratory or swallowing sounds such as spectrogram, time intervals, average power within different frequency bands are extracted and displayed. Finally, these features along with other features (such as fractal dimension, and wavelet coefficients) are used for automated screening of healthy and possibly abnormal subjects.
CONCLUSIONS: This system enables a patient to be in virtual contact with specialist at a medical center despite the distance between the parties. In addition, this system offers new and innovative methods for swallowing disorder assessment, which may be considered as a non-invasive and objective alternative for currently used methods.
ACKNOWLEDGEMENT: Authors would like to acknowledge funding support by Telecommunications Research Laboratories (TRLabs) of Canada.

10.02 TÉLÉSOINS À DOMICILE ET PREMIÈRE LIGNE (PRIMARY CARE) : EXPÉRIMENTATION AU CENTRE DE SANTÉ ET SERVICES SOCIAUX QUÉBEC NORD (CSSSQN)

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INTRODUCTION : Dans un contexte de réorganisation des services de santé et d'une demande accrue de soins à domicile, le CSSSQN a été le premier établissement de soins de première ligne au Québec, à expérimenter et intégrer les télésoins.
DESCRIPTION : D'avril 2003 à octobre 2004, pour une clientèle atteinte de MPOC ou d'insuffisance cardiaque, vingt moniteurs ont été utilisés pour saisir et transmettre électroniquement à un serveur central des paramètres vitaux et des réponses à un questionnaire personnalisé. L'infirmière responsable assurait le suivi avec les cliniciens généralistes et spécialistes concernés. Une évaluation a été intégrée pour analyser les pratiques, l'organisation et l'utilisation des services.
RÉSULTATS : Les télésoins ont permis de suivre 40 patients plus sévèrement atteints que la clientèle traditionnelle des soins à domicile, dont 78% présentaient une comorbidité. Des premiers patients étudiés, 12 ont pu éviter 25 visites à l'urgence et des hospitalisations. Une organisation de soins plus spécialisés et une pratique réactive aux alertes se sont ajoutées à l'organisation de soins plus généraux et une pratique plus planifiée. Les relations entre infirmières et médecins et entre le CSSSQN et les hôpitaux se sont améliorées. Des dépenses additionnelles pour le CSSSQN et une diminution de services coûteux pour les hôpitaux ont été observées.
CONCLUSION : Pour des politiques et diffusions efficientes des télésoins, une attention particulière doit être portée aux choix des clientèles, à la dynamique de changement des organisations et des pratiques et aux stratégies de financement et de partage des coûts entre les établissements impliqués.

10.03 REACHING RURAL AND REMOTE COMMUNITIES WITH SATELLITE TELEHOMECARE

Woronczuk C, LeDain T.
March Healthcare, Ottawa, ON.

INTRODUCTION: Video-based telehomecare applications offering valuable remote visits between patients and nurses have been limited in their use to urban communities serviced by broadband communications infrastructure such as DSL and cable. Delivery of healthcare services to remote communities has lagged due to the lack of availability in communications infrastructure required for high-quality video-based remote visits. The delivery of nursing services via two-way satellite will address these limitations and extend access to health monitoring and disease management services to rural and remote communities.
DESCRIPTION: A research and development effort was undertaken through a partnership between the European Space Agency (ESA), Canadian Space Agency, Telesat Canada and March Healthcare to demonstrate the functionality and usability of remote video-based telehomecare visits using two-way broadband satellite communications. Performance of the resultant system addresses packet latency, quality of service, bandwidth, and availability issues. The system provides a high degree of diagnostic and monitoring capabilities in order to support and maintain system use and operation in remote locations. Additionally, to ensure seamless program deployment in different regions, the system is interoperable with other communications infrastructures.
RESULTS: This technology, expertise and cost-sharing partnership project concluded in July 2004 with a successful demonstration of a high-quality video visit between two ESA locations in Europe: the Frascati, Italy-based European Space Research Institute (ESRIN) and the European Space Research and Technology Centre (ESTEC) in Noordwijk, Netherlands.
CONCLUSION: Telehomecare services can be delivered to rural and remote communities as part of a wide-reaching program utilizing satellite communications.

10.04 TELEOPHTHALMOLOGY: PREVENTING BLINDNESS IN REMOTE COMMUNITIES

Muller N.
Keewaytinook Okimakanak Telehealth, Balmertown, ON.

INTRODUCTION: Keewaytinook Okimakanak Telehealth has developed an effective Teleophthalmology project for its remote community members who have diabetes.
DESCRIPTION: This service involves an eye assessment that meets the Canadian Diabetes Association Clinical Practice Guidelines for retinopathy screening with an education component. While following the best practice established by the University of Alberta's Teleophthalmology Department, it is also unique in the community integration and personal follow-up that KOTH can deliver with its Community Telehealth Resources.
RESULTS: Preliminary results show that over 70% of the clients seen were saved a trip to the ophthalmologist's office. We have found several undiagnosed cases of diabetic retinopathy, as well as many clients requiring glaucoma and cataract follow up care. Reports are available within days and documented in the nursing station file. Client's who identify a need are also referred to other diabetes services available.
CONCLUSION: This new Teleophthalmology project promises to prevent blindness for remote community members and for the first time allows them the opportunity to meet the Canadian Diabetes Guidelines for eye care.

10.05 EYE FOCUS: ASYNCHRONOUS TELEOPHTHALMOLOGY AUGUMENTS PATIENT CARE THROUGH ENHANCED REGIONAL CAPACITY

Harmos F, Timleck K, Kaban T, Gonder J, Hansford H.
VideoCare/London Health Sciences Centre, London, ON.

INTRODUCTION: The Ophthalmic Digital Imaging Network (ODIN) is an asynchronous consult system in Southwestern Ontario, supporting diagnosis and treatment of diabetic retinopathy and macular degeneration. Ongoing support for similar initiatives requires evidence that goes beyond the anecdotal. Our investigation addressed the impact of the ODIN on the accessibility of ophthalmic care in the region.
METHODS: During a two-month retrospective investigation we interviewed site coordinators, ophthalmologists and medical photographers, and administered a standardized satisfaction survey. We analyzed the ODIN wait times, patient usage statistics and estimated travel-related savings for the period 2001-2005. We subsequently compared our findings with the stated project benefits.
RESULTS: Indicators suggest that acceptance of the ODIN is widespread. The number of consults has grown from 484 in 2001 to 992 in 2005. While this figure is expected to grow by at least 360 over the next 12 months, the network will adapt to increasing demands. Enhanced regional capacity may condense wait times to approximately three weeks – a figure significantly below current standards. This is accomplished through better physician workload management, versatility of digital images and availability of care closer to home. We propose that a more detailed assessment of access and wait time indicators could be obtained by developing a standardized evaluation tool for asynchronous technologies.
CONCLUSIONS: In an environment marked by ophthalmologist shortages and excessive wait times, teleophthalmology is instrumental in the provision of timely care closer to home. Evidence-based health care planning requires the development of a comprehensive evaluation tool for asynchronous telemedicine applications.

Session 11: Underserviced Communities

Oral Presentations: 11.01-11.06
Tuesday, September 27, 2005, 1030-1200
Room: Gateway

11.01 THE TELEPRIMARY CARE DEMONSTRATION PROJECT: THE IMPLEMENTATION OF A MULTI-SITE PRIMARY HEALTH CARE INITIATIVE

Brown G[1], Waite K[1], Nickoloff A[1], Sarsfield L[1], Bajnok I[2], Butcher M[3], Lumsden C[4], Brown, E[1].
[1]NORTH Network, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON. [2]Registered Nurses' Association of Ontario, Toronto, ON. [3]Nurse Practitioners' Association of Ontario, Toronto, ON. [4]Ontario College of Family Physicians, Toronto, ON.

INTRODUCTION: While Telehealth is used extensively for medical specialist consultation in Canada, there is limited documentation on application to the primary health care

setting. NORTH Network has collaborated with seven partner organizations to lead the Primary Health Care Transition Funded project, Teleprimary Care: Demonstrating the Role of Telehealth in Primary Health Care. The project goals are to demonstrate how telehealth can enhance quality of care and outcomes by improving access to interdisciplinary care providers; encouraging interdisciplinary collaboration; and enhancing knowledge and skills of primary health care practitioners.
DESCRIPTION: A distributed project structure was established to support the design and deployment of project components, including new site implementation; the development of a teleprimary care consultation model and associated documents and tools; a telementoring resource kit and process to facilitate nurse practitioner to nurse practitioner mentoring; and development and deployment of an evaluation framework, process and tools. The project links nine remote and rural nurse practitioners and geographically distinct collaborating physicians on six sites.
RESULTS: After an intensive planning process, telehealth was integrated into multiple primary health care settings. Patient consultations began in July 2005 and formal project evaluation is anticipated in April 2006.
CONCLUSIONS: When implementing telehealth in primary health care, consideration needs to be given to the setting, nature of delivery of primary health care, and nuances of nurse practitioners practicing at a distance from their collaborating physicians. The processes and tools that have been developed may apply to other organizations implementing telehealth in the primary health care setting.

11.02 LEVEL 1 WHEELCHAIR SEATING CLINIC TARGETING RURAL HOSPITAL SITES IN THE CALGARY HEALTH REGION

Keenan C, Whitney B, Gorin D, Wilson-Kramer J.
Calgary Health Region, High River, AB.

INTRODUCTION: The High River Seating Clinic uses videoconferencing technology to support Level 1 wheelchair and seating component prescriptions/assessments in five rural hospital sites in the Calgary Health Region. This is example of a rural-to-rural Telehealth application that builds capacity in an environment where these professional skills are in short supply. Lack of access to a Level 1 seating service can lead to unsatisfactory seating outcomes for patients (e.g. open wounds, poor posture, poor swallowing).
DESCRIPTION: Patient and therapist at the rural hospital site link by video to a physical and occupational therapist in High River. With use of handheld cameras and computerized pressure pad technology, patients with complex seating needs receive wheelchair seating assessments/prescriptions.
RESULTS: Between April-December 2004, 20 new clients benefited from the service through 30 tele-consultations. Eleven rehabilitation therapists and three vendors are now trained in the use of Telehealth equipment. Adequate consultation with stakeholders (e.g. Alberta Aids to Daily Living, private vendors, patients) and processes well integrated into clinic operations were among the key lessons learned. 80% of patients surveyed "strongly agree" with the statement: "I prefer a Telehealth visit to traveling to High River for a visit".
CONCLUSION: This rehabilitation project is unique because it provides seating services using rural expertise to serve other underserved rural communities. Level 1 wheelchair seating assessments over Telehealth are viable with appropriate skills, training and support. Rural-to-rural tele-consultations build capacity, sustainability and professional independence outside urban centers.
ACKNOWLEDGEMENT: This project funded through an Alberta Health and Wellness Clinical Telehealth grant.

11.03 IMPACT OF TELEHEALTH IN THE TREATMENT OF LUNG CANCER

Winton T[1,2], Butts C[1], Reiman T[1], Janzen H[1], Fields A[1], Cummings G[1], Hoeber M[1], King C[2], Delorme T[2], Allen D[1], Scrimger R[1], Graham N[1], Reinbold DJ[3], O'Neill SK[3], Bexfield D[4].
[1]Alberta Cancer Board (ACB), Edmonton, AB. [2]Capital Health (CH), Edmonton, AB. [3]Peace Country Health (PCH), Grande Prairie, AB. [4]David Thompson Health Region (DTHR), Red Deer, AB.

INTRODUCTION: Lung cancer represents a health care delivery challenge. Demographics predict significant increases in both males and females over the next 2-3 decades. Rural patients suspected or previously treated for lung cancer deserve timely, comprehensive investigation, treatment and follow-up despite the fact they may live considerable distances from tertiary/referral centre.
DESCRIPTION: A multi-region telehealth lung cancer triage clinic was initiated to serve rural patients in Central and North Eastern Alberta, Northwestern British Columbia, NWT and the Yukon. This clinic enabled the patients to remain in their home communities with their established support systems while comprehensive care was accessed.
RESULTS: Over 300 patients have remained in their own communities, while receiving specialist driven investigation and medical care. Majority of patients would have traveled over 500 km to receive specialized care. Telehealth eliminates the need for multiple trips; previously patients may have traveled up to four times for specialist visits. Telehealth has reduced travel time, costs and the stress previously experienced by rural patients and their families in accessing care. This unique clinic allows utilization of resources already present in the community and significantly increased collaboration between primary care providers and specialists involved in the care of lung cancer patients. This clinic has enabled the patients to have a standardized streamline approach through their investigation, diagnosis and treatment process.
CONCLUSIONS: It is our experience that the feasibility, effectiveness and value of Telehealth is positively received by both patients and physicians and will play a major role in the future of medicine.

11.04 USING TELEHEALTH TO IMPROVE RENAL CARE IN CENTRAL AND NORTHERN ALBERTA

Harsch D[1], Iskiw B[2].
[1]Northern Alberta Renal Program (NARP), Capital Health, Edmonton, AB. [2]Regional Telehealth Department, Capital Health, Edmonton, AB.

INTRODUCTION: Patients diagnosed with progressive renal insufficiency or renal failure are required to see their renal specialist 4-6 times a year. Visits to an urban centre are often not attended by rural clients due to inconvenience and cost, thus delaying the management of complications and increasing the risk of emergency visits.

DESCRIPTION: A 1.5 year pilot project attempted to improve access to specialists and quality of care through the use of telehealth. Patients and renal specialists in 6 health regions in central and northern Alberta completed questionnaires throughout the pilot. The questionnaires included both closed and open-ended questions, based on Capital Health's Quality Framework, and a Likert rating format.
RESULTS: 188 hemodialysis, 37 peritoneal dialysis and 65 transplant patient visits occurred by telehealth (290 total). 721 care providers received Diabetic Nephropathy training through telehealth. 119 patient, 19 Capital Health-based renal specialists, 18 rural care providers and 95 Diabetic Nephropathy trainee questionnaires were completed. 90% of patients, 96% of remote health care providers and 85% renal clinicians reported satisfaction with telehealth sessions. Travel expenses for patients decreased by 45%, compared to in-person visits. There was 15% reduction in ER visits from participating satellites. 69% of patients felts that telehealth allowed them to see renal specialists sooner than if they had to travel to Edmonton.
CONCLUSIONS: Through increased accessibility to healthcare providers, the number of patients with clinical complications decreased, as did emergency visits. Supported by these findings, Capital Health TeleRenal has been integrated into a sustainable clinical program in NARP.

11.05 TELEHEALTH-ENABLED KNOWLEDGE AND SKILL TRANSFER FOR COMMUNITY-BASED FIRST NATIONS SERVICE PROVIDERS

Klassen C, Williams D.
Keewaytinook Okimakanak Telehealth, Balmertown, ON.

INTRODUCTION: Main-stream telehealth education sessions were not meeting the learning needs of First Nation health staff. Keewaytinook Okimakanak Telehealth developed and implemented a capacity-building strategy to address the learning needs specific to First Nation health care providers.
DESCRIPTION: A base-line survey was conducted in the fall of 2004 to determine the learning needs of the First Nations health staff. Health Directors then prioritized the health positions requiring training. A Telehealth Education Advisory Committee was established and continues to guide the process in selecting the best educational programs for community health staff.
RESULTS: Through partnerships and speaker recruitment, we now have an average of twelve education sessions each month. Each session is scheduled to meet needs identified in the initial baseline survey, or newly identified needs reported on the Participant Evaluation Form distributed at each education event. Education events are also web-streamed for the benefit of health staff who are unable to attend the session, and for communities who may not have technical connectivity on the date of the event. We are now averaging an attendance of over four hundred (400) participants per month at the live training sessions.
CONCLUSIONS: A survey will be re-implemented in the fall of 2005 to determine the degree of success in meeting the learning needs of First Nation health staff.
ACKNOWLEDGEMENTS: Keewaytinook Okimakanak Telehealth would like to acknowledge funding support from Health Canada's E-Health Program, and Health Canada - Ontario Region.

11.06 ADDRESSING HEALTH ACCESS ISSUES VIA A FIRST NATIONS TELEHEALTH NETWORK

Williams D.
Regional Telehealth Coordinator, Keewaytinook Okimakanak, Balmertown, ON.

INTRODUCTION: There is increasing evidence of compromised health status and reduced quality of life in rural and remote First Nations populations. The Health Council of Canada reports (2005) that "Access to health care services is an issue for Aboriginal communities…particularly in Canada's northern and remote communities." The KO Telehealth network directly addresses health access issues by connecting First Nations to both specialist care and primary health care through a First Nations Telehealth Network.
DESCRIPTION: Keewaytinook Okimakanak Telehealth (KO Telehealth) is Canada's busiest and largest First Nations telemedicine service – encompassing more than 24 sites. KO Telehealth works in partnership with NORTH Network to provide integrated access to provincial and federal health services. For the past four years KO Telehealth has designed, implemented and refined a First Nations service model that supports and sustains telehealth services in Ontario's most remote and northern communities. Remote communities now have access to specialty services within their own communities, coordinated by Community Telehealth Coordinators in their own language, by their own people. In addition, access to general physician care has increased as community physicians utilize telehealth to supplement community visits.
RESULTS: Through community consultation, collaboration and partnership development, KOTH has implemented a clinically based Telehealth service in remote First Nations. In April 2005, KOTH had 100 clinical consults. The most common clinical uses are cardiology, psychiatry, diabetes care and family medicine.
CONCLUSIONS: Telehealth is a viable and effective way of addressing health access issues for First Nations living in remote communities.

Session P1: Impact of Telehealth on Users & Homecare
Posters P1.01-P1.09
Posters on Display throughout conference
Oral Overviews: Tuesday, September 27, 2005, 1030-1200
Room: La Verendrye

P1.01 DISTANCE EDUCATION VIA TELEHEATH AND THE SUSPECTED CHILD ABUSE AND NEGLECT PROGRAM, THE HOSPITAL FOR SICK CHILDREN, TORONTO

Cheng Tsallis A[1], Smith T[2], Fontana Chow K[1], Wentzel K[2].
[1]Telehealth Program, The Hospital for Sick Children, Toronto, ON. [2]SCAN Program, The Hospital for Sick Children, Toronto, ON.

INTRODUCTION: A collaborative Telehealth education initiative with the Suspected Child Abuse and Neglect Program (SCAN) at The Hospital for Sick Children was introduced this year. It is estimated that 1 in 4 girls and 1 in 10 boys will be sexually abused / assaulted before they reach 18. The development of community based sexual assault centres across Ontario gives victims and their family's access to professional assistance in their communities.
DESCRIPTION: Community based centres engage in ongoing monthly education rounds, the goal of this collaborative initiative is to maximize the application of videoconferencing to support practitioners in community based paediatric sexual assault centers, and provide them with the ongoing education necessary to treat and manage children who have been the victims of a sexual assault.
RESULTS: Telehealth technology enables the secure and timely distribution of essential education material to health care practitioners, in rural and community based locations throughout the Province. The potential outcomes include: a standardized delivery of care ensuring best practices for victims and their families, a decreased sense of isolation and increased confidence and competences of the practitioner.
CONCLUSION: Telehealth technology has removed the distance between these institutions allowing them to communicate openly with their colleagues across Ontario. The popularity and continued increase in site attendance is a positive sign that these continuing Telehealth education rounds are both invaluable and essential to practitioners working within the field of Child Sexual Abuse.

P1.02 THE EVOLUTION OF PAEDIATRIC CARDIOLOGY - A YEAR IN REVIEW

Reid J[1], Fontana Chow K[1], Ouellet S[2], Burrill L[2], Makara B[3].
[1]The Hospital for Sick Children, Telehealth Program, Toronto, ON. [2]London Health Sciences Centre, London, ON. [3]Children's Hospital of Eastern Ontario, Ottawa. ON.

INTRODUCTION: In early 2004 The Hospital for Sick Children (Sick Kids) embarked upon a collaborative initiative with the London Health Sciences Centre (LHSC) to provide cardiovascular surgical services to children residing in Ontario. This initiative now incorporates five provincial centers of paediatric excellence including the Children's Hospital of Eastern Ontario (CHEO), Kingston General Hospital (KGH) and Hamilton Health Sciences Centre. Its goal is to maximize the application of videoconferencing to support paediatric cardiovascular care, consultation and education.
DESCRIPTION: Clinical assessments and treatment options for complex congenital heart cases, which may require surgical intervention, are presented and discussed collaboratively. Technology enables the transmission and exchange of diagnostic quality images, including echocardiography, digital angiography, computed tomography and magnetic resonance imaging. The participating centres are all partners in the Paediatric Cardiac Network (PCN) of Ontario, an advisory body to the Ministry of Health and Long Term Care through the Specialized Paediatric Coordinating Council.
RESULTS: This timely exchange of clinical expertise and diagnostic information provides seamless continuity of care and assists in the development of innovative strategies to manage the challenges faced by children and their families, who are living with congenital heart disease.
CONCLUSION: The PCN has a vision to foster an unsurpassed coordinated system for providing measurable world-leading outcomes for all children with heart disease in Ontario. Sick Kids Telehealth and Cardiology programs, in partnership with the PCN, will continue to strive to fulfill this vision.

P1.03 KITCHI-AH-HAH WII-KWUN-DIWIN: HEALTH, CULTURE AND LANGUAGE SERIES FOR ELDERS

Muller N, Klassen C.
Keewaytinook Okimakanak Telehealth, Balmertown, ON.

INTRODUCTION: This unique use of telehealth provides many benefits for Elders, their caregivers and the telehealth initiative.
DESCRIPTION: Monthly Telehealth sessions that consist of an education topic of interest to Elders and time for visiting with each other has proven to benefit the participating remote communities and the telehealth initiative in many ways. All communication is in Oji-Cree or translated immediately and healthy meals and snacks are always included. Up to 100 Elders spread over a thousand kilometers of North Western Ontario participate through their Community telehealth systems and this includes those in far away Long Term Care facilities. The success of this program comes from many service providers working together. Started with a 3 month grant from Aboriginal Healing and Wellness, the Health Directors and Elders of participating communities have made it clear this program must be a permanent part of the telehealth programming.
RESULTS: The amount of laughter and the joy Elders express in communicating in Oji-Cree and Cree with distant Elders shows the importance and success of this project. A highlight is when a 106 year old Elder now living in Long Term Care speaks to his community and the younger 60-80 year old participants about his memories.
CONCLUSION: Elders can easily become comfortable with using telehealth. While coordinating this multi-purpose event takes planning, the benefits are well worth the effort.

P1.04 TELE-PHYSIOTHERAPY: UTILIZING TECHNOLOGY TO SUPPORT CARE DELIVERY DURING A HUMAN RESOURCE SHORTAGE IN ONTARIO

Huffman S[1], Jones N[2], Bolton C[3].
[1]CareConnect, Kingston, ON. [2]Quinte Healthcare Corporation, Belleville, ON. [3]Regional Stroke Strategy, Kingston General Hospital, Kingston, ON.

INTRODUCTION: In Ontario, there are numerous vacancies for physiotherapists. Hospitals have fiscal and human resource challenges in filling temporary leaves. A small hospital which is part of a larger corporation was left without an onsite physiotherapist to provide care due to maternity leave. A creative solution, using the CareConnect telehealth network, was employed to offer patients the ability to return to their local community.
DESCRIPTION: Physiotherapists at Belleville General Hospital participate in weekly follow up consultations to manage care of their stroke patients after discharge back to their community hospital in Bancroft, two hours away. Treatments are carried out at the remote site by a Physiotherapy Assistant (PTA) who is under the supervision of a physiotherapist (PT) at the consulting site. Patients would have otherwise had to remain in the tertiary care centre potentially blocking a much needed bed and recovering further away from their family and friends.
RESULTS: Provision of onsite training for the PTA with the PT in Belleville, a technical training session and protocol development facilitated by the telestroke project leader and CareConnect laid the groundwork for the project. To date 3 patients have been discharged with weekly follow ups. The initial reactions are very positive by staff and patients. Physiotherapists are comfortable with the supervision model.
CONCLUSIONS: The program has been met with much enthusiasm by staff. Expansion beyond stroke patients to orthopaedic patients has already occurred. The success is triggering investigation into other allied health applications to maximize service delivery with limited human resources.

P1.05 RURAL TELEHEALTH COORDINATORS: A VITAL LINK IN TELEHEALTH INTEGRATION IN THE CALGARY HEALTH REGION

Cleary M[1], Keenan C[1], Kettle J[1], Nijssen-Jordan C[2].
[1]Telehealth Program Calgary Health Region, Calgary, AB. [2]University of Calgary, Calgary, AB.

INTRODUCTION: The Calgary Health Region includes nine rural hospital sites with full Telehealth capabilities. Telehealth implementation and promotion in rural areas are challenging due to scarce human resources and technical skills on these sites. We have mobilized an innovative and unique squad of Rural Telehealth Coordinators to overcome these challenges. The result is an exceptionally successful program of clinical, administrative, and education Telehealth serving rural patients and staff.
DESCRIPTION: In April 2002, the Calgary Health Region engaged Rural Telehealth Coordinators in 9 sites for 8 hours per week (0.2 full time equivalent). The Coordinators are long-standing and respected employees of the Region, and are the “face of Telehealth” on the sites they represent. They come from a variety of backgrounds, including educational coordinators and unit clerks. Duties include scheduling Telehealth sessions, technical assistance, and promotion of Telehealth usage throughout the site.
RESULTS: The Calgary Health Region Telehealth Program has experienced a 52% growth in number of sessions in the past 36 months. The Rural Telehealth Coordinators have been instrumental in facilitating 27% (n=1526) of these regional Telehealth encounters over the past 12 months. This includes over 200 clinical interactions, 700 educational sessions, and 600 administrative meetings. Issues currently being addressed include capacity/activity demands, training, differing skill levels and pay equity.
CONCLUSIONS: This unique service model adds richness to the regional Telehealth program. Telehealth skills and capacity are built in the rural areas, making the rural Telehealth service sustainable and self-sufficient, complementing the urban/rural integration of Telehealth across the Region.

P1.06 SAVETIME: REAL-TIME EMERGENCY MEDICINE CONSULTATIONS USING TELEHEALTH TECHNOLOGY IN THE CALGARY HEALTH REGION

Jordan V[1], Curry G[1], Cleary M[2], Keenan C[2], Nijssen-Jordan C[2,3].
[1]Department of Emergency Medicine, Calgary Health Region, Calgary, AB. [2]Telehealth, Calgary Health Region, Calgary, AB. [3]University of Calgary, Calgary, AB.

INTRODUCTION: The "Southern Alberta Access to Vital E-Services Telehealth Initiative for Medical Emergencies" (SAVETIME) was developed as an innovative new service designed to link rural physicians by videoconference to emergency physicians in an urban tertiary center. Real time 24/7 remote assessment by consultant physicians, located in urban adult and pediatric emergency departments, has facilitated decision making for rural emergency patients.
DESCRIPTION: In November 2003, a needs assessment was performed with rural physicians and a multi-disciplinary working group was created. Rural physicians were connected with Calgary emergency physicians for Telehealth consultation using a preexistent urgent referral line (STARS Air Ambulance). Telehealth equipment and cameras were installed in both an urban adult and pediatric emergency department. At the rural sites, telehealth equipment also included a document camera for the transmission of X-rays, ECGs and other documents. Staff in eight rural and two urban EDs were trained to use the system. Formal midterm and final evaluations were conducted.
RESULTS: From February 2004 - 2005, 46 consults were completed. The top four types of consults were adult orthopedic (n=16), followed by pediatric orthopedic (10), general pediatric (7) and plastic surgery (6). Transport into Calgary for further assessment was avoided in the majority of cases. The average consult took 10 minutes.
CONCLUSIONS: Emergency Telehealth consults are possible, useful and improve patient access to tertiary care. The service has been well accepted by the rural physicians.
ACKNOWLEDGEMENT: This project was funded by an Alberta Health and Wellness Clinical Telehealth grant.

P1.07 BRIDGING THE DISTANCE FOR TUBE FED CHILDREN USING TELEHEALTH

Graham-Parker C, Houtstra T, Mahood J, McGuiness R, Pochynok V.
Northern Alberta Home Nutrition Support Program, and the Sollery Children's Hospital Telehealth, Edmonton, AB.

INTRODUCTION: The Pediatric Home Nutrition Support Program (HNSP) located within Edmonton's Stollery Children's Hospital provides services to 475 tube-fed children located in Northern Alberta. 42% of HNSP patients reside outside the Edmonton area requiring travel to the Stollery Children's Hospital for follow-up appointments (approx. 2-8 hours driving time). Many barriers exist for transporting physically dependent patients to Edmonton for this service; therefore, HNSP provided follow-up for children as part of a regional Child Health/Capital Health Telehealth project.
DESCRIPTION: 24 complex tube fed children received multidisciplinary team (dietitian, nurse, social worker, feeding therapist) telehealth follow-up over 13 months. The follow-up plan was determined by factors such as: travel distance, frequency of cancelled appointments and complexity of the child's care.
RESULTS: The use of Telehealth eradicated the barriers of cost, distance, time and difficulty transporting dependant children. Regular telehealth review sessions assisted in preventing complications and hospitalizations; and enhanced relationships between families, communities and the healthcare team. Additional outcomes were support, involvement and education to community service providers. Patients in the pilot received dietary, tube site and oral feeding recommendations (n=20). Referral to emergency care or diagnostic testing (2) and initial feeding assessments (2).
CONCLUSION: Telehealth enables specialized follow-up for children in rural communities. This service may prevent complications leading to hospitalizations and reduce medical and social cost to families. Community relationships are enhanced be access to the HNSP team. Review of the service by families received over 90% satisfaction rate.

P1.08 TELEHOMECARE IN PALLIATION STUDY (TIPS): REAL-TIME VIDEOCONFERENCE SUPPORT FOR END OF LIFE CARE.

Abernathy T[1], Cohen R[2], Goldsmith C[3], Jadad A[4], Kirshen A[5], Librach L[5], Thabane L[3], Stern A[6].
Presenter: Willerding N.
[1]Central West Health Planning Information Network, Hamilton, ON. [2]McGill University, Montreal, QC. [3]Centre for Evaluation of Medicines, McMaster University, Hamilton, ON. [4]Centre for Global ehealth Innovation, Toronto, ON. [5]Temmy Latner Centre for Palliative Care, Toronto, ON. [6]School of Nursing, McMaster University, Hamilton, ON.

PURPOSE: The purpose of this study is to evaluate the impact of home telehealth for palliative patients and their primary caregivers newly referred to the Temmy Latner Centre for Palliative Care. The study will focus on the impact on utilization of service, quality of life, pain and symptom management, and satisfaction.
METHOD: All patients who meet the eligibility criteria will be randomly allocated using a computer generated randomization system to one of two groups: 1) standard palliative home care service or 2) home telehealth plus modified standard service. Home telehealth consists of a variety of health care professionals providing care via an Internet- based videophone attached to a series of peripheral measurement devices. Primary caregivers will also be approached to participate. Evaluation will be conducted every 2 weeks for a 6-month period by a research assistant who will administer a series of surveys over the telephone measuring utilization of service, pain and symptom management, quality of life, and satisfaction. Satisfaction of professionals with home telehealth will be evaluated. We aim to recruit 300 patients in total.
RESULTS: Seventy patients have been admitted to the study at this time. Although the study will not be completed until April 2006, we will share lessons learned to date.

Session P2: Sustainability and Integration

Posters P2.01-P2.09
Posters on Display throughout conference
Oral Overviews: Tuesday, September 27, 2005, 1030-1200
Room: Salon AB

P2.01 ONTARIO CHILDREN'S HEALTH NETWORK TELEPAEDIATRICS IN ONTARIO

Guttman B[1], Ouellet S[2], Fontana Chow, K[3].
[1]Ontario Children's Health Network, Toronto, ON. [2]London Health Sciences Centre, London, ON. [3]The Hospital for Sick Children, Toronto, ON.

INTRODUCTION: Paediatric telehealth services are currently provided to rural and remote locations in Ontario by 5 separate programs associated with Ontario's Paediatric Academic Health Science Centres (PAHSCs). The scope and quantity of utilization is very variable within and between organizations.
DESCRIPTION: The Ontario Children's Health Network (OCHN) Paediatric Videoconferencing Task Group was established in August, 2004 to develop a provincial strategy for Telepaediatrics for Ontario. Its goal is to maximize the application of videoconferencing to support paediatric patient care, consultation and education.
The task force's objectives are to:
• Review videoconferencing practices for the OCHN partners to describe the current services provided (what and to whom)
• Share applications that work well
• Identify opportunities to coordinate and expand current applications
• Identify barriers to videoconferencing use
RESULTS AND CONCLUSION: The poster will highlight key recommendations for enhancing the system stemming from a review of current practices in which the current system's issues and strengths were identified. Recommendations address the expansion of utilization for clinical and education/training purposes; administrative/HR resources to support utilization increase; and guidelines for equipment/technology. The poster will also outline guidelines for clinical, educational and administrative use of videoconferencing technology that have been developed for use across the system.

P2.02 INTERNATIONAL COLLABORATIVE PROJECT FOR THE PROVISION OF PAEDIATRIC HEALTH CARE AND PROFESSIONAL EDUCATION

Fontana Chow K[1], Zulaika A[2], Sharma K[1], Hamilton R[1], Reid J[1], Cheng Tsalis A[1].
[1]The Hospital for Sick Children, Toronto, ON. [2]University of the West Indies, St. Augustine Campus, Trinidad.

INTRODUCTION: The twin island republic of Trinidad and Tobago has a population of 1.3 million with 31% under 15 years of age and 21% living in poverty. Subsequently, many poor and disadvantaged families cannot access subspecialty care at home or abroad. In an attempt to address this need, a Telehealth Link was established between the Faculty of Medical Sciences, University of the West Indies and the Hospital for Sick Children (Sick Kids), University of Toronto, Canada.
DESCRIPTION: The new Telehealth Program at the Eric Williams Medical Sciences Complex, Trinidad, offers specialist consultations and continuing education to recipients via a videoconferencing link with Sick Kids, Toronto, Canada. It allows high-quality health care to be made available to cases in need, thereby enhancing and standardizing the quality of medical care.
RESULTS: This project is still in its start-up phase but expected outcomes include:

- The provision of quality paediatric health care to underserved families
- Reducing costs by avoiding unnecessary travel abroad for assessments
- Strengthening training and increasing the expertise of sub specialists locally
- Stimulating and promoting the exchange of research in paediatric specialties
- Promoting academic exchange

CONCLUSION: Sick Kids is dedicated and committed to the continued development of this project for it reflects our vision to be a global force in children's health. We continually strive to share in the exchange of clinical and educational best practices in order to maximize quality paediatric care on an international scale.

P2.03 INTEGRATING TELEHEALTH INTO THE HOSPITAL MAINSTREAM: A CASE STUDY FOR DEVELOPING A STANDARDIZED IMPLEMENTATION METHODOLOGY

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[1]VideoCare, London Health Sciences Centre, London, ON. [2]Leamington District Memorial Hospital, Leamington, ON.

INTRODUCTION: Limited awareness along with increased financial constraints are two issues facing hospitals considering using telehealth in their clinical settings. Using a standardized approach to integrate telehealth into existing clinical departments can minimize the impact on hospital resources and build a solid foundation for a sustainable program.
DESCRIPTION: Leamington District Memorial Hospital is a community hospital in southern Ontario serving 40,000 patients. Requests from remote specialists for teleconsultations in the area were steadily increasing. In collaboration with VideoCare, the hospital successfully integrated telehealth into their existing outpatient medical clinic. Standard telehealth policies, procedures and related documentation were tailored to meet hospital requirements.
RESULTS: Initial support from hospital leadership led to the establishment of a steering committee. A site readiness process was undertaken to evaluate the infrastructure required to support clinical videoconferencing. A clinical working group developed clinical standards and a service delivery pathway. Telehealth training was provided to the clinical staff and included hands on sessions, mock trials along with the development of user manuals and help sheets. Additionally, patient teaching packages were created. Since October 2004, the clinic has successfully hosted 16 teleconsultations. Evaluation results received to date demonstrate a high level of user and healthcare provider satisfaction.
CONCLUSION: Integrating telehealth into the hospital mainstream can be simple and cost effective. Lessons learned at this site have led to refinement of the clinical site readiness process, along with improvements in tools and training methods that can be applied at other sites.

P2.04 TELEHEALTH NURSES WORKING FROM HOME – INNOVATION BRINGING QUALITY PATIENT CARE AND QUALITY OF WORK LIFE TOGETHER

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INTRODUCTION: Clinidata is a recognized leader in providing 24/7 telehealth services to a broad population base in Canada. In the fall of 2004, it undertook a pilot project whereby 10 nurses from Ontario and New Brunswick would be offered the possibility of practicing tele-nursing from their home setting.
DESCRIPTION: The Work from Home pilot project started with the establishment of nurse selection criteria, technology requirements, service delivery criteria, followed by the development of evaluation criteria. The implementation phase included nurse resource identification, establishment of home offices, and approval by client bodies. Ten nurses were selected and started working from home in April 2005. An evaluation framework was developed and is being used on an ongoing basis. The project will be formally evaluated at the end of 6 months.
RESULTS: Key components that are being evaluated include a cost-benefit analysis, flexibility of scheduling, changes in productivity, employee and client satisfaction, and impact on overall service levels. After the initial two months, there is high satisfaction among the staff who are working from home, and while there was an initial increase in workload for the IS staff, this has significantly decreased after some early issues were resolved.
CONCLUSIONS: This initiative has great potential at Clinidata. Initial reports are that it is a worthwhile project with respect to productivity and flexibility of scheduling, particularly during times of high call volume. This presentation will outline how the Work from Home was implemented at Clinidata and key components of the evaluation criteria.

P2.05 CAN YOU SEE THE HEARTBEAT: USING VIDEOCONFERENCING TO ASSIST PAEDIATRIC CARDIOLOGY CONSULTATIONS

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INTRODUCTION: At a tertiary academic health care centre, healthcare providers are charged with enhancing paediatric cardiac care in a regional context, as both a consulting and a referring site. Increased travel demands on the nurse practitioner caused the team to examine new ways of providing clinical care.
DESCRIPTION: While the tertiary centre has a paediatric cardiology service, children undergoing cardiovascular surgical procedures must travel to another health care facility. The healthcare providers must serve this patient population while still providing tertiary consultations to the broader region. As a result, patients with congenital heart disease were identified as a potential beneficiary of the use of videoconferencing to enhance care.
RESULTS: A paediatric cardiology link was established. At weekly "Surgical Discussion" and "Surgical Review" rounds, both organizations present cases and transmit cardiac echo images directly from their peripherals via telemedicine. At the consulting site, a similar link allows the team to periodically read "urgent" echo readings transmitted from a regional neonatal intensive care unit. The program saw staff travel time reduced by 50 hours per year, resulting in overall system cost savings of approximately $15,000 per year. An evaluation of both the technical aspects of the telemedicine linkages and a satisfaction survey of the participants is ongoing.
CONCLUSION: Videoconferencing reduces staff travel time and provides earlier access to answers regarding intervention. These successes and relationships have led to an examination of the potential for using the technology to support adult congenital cardiology rounds.

P2.06 IMPROVING THE PATIENT EXPERIENCE: THE URBAN TELEHEALTH INITIATIVE FOR ORGAN TRANSPLANT RECIPIENTS

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Telehealth Program, University Health Network, Toronto, ON.

INTRODUCTION: Healthcare organizations continuously strive to improve quality across the continuum of care. University Health Network (UHN), in partnership with St. John's Rehab Hospital and the North Network are engaged in a 12-month pilot project to embed videoconferencing into the care pathway for organ transplant recipients who are challenged by the physical barriers present in an urban environment. The primary goal of this Urban Telehealth Initiative is to enhance the quality of the transplant patient experience.
DESCRIPTION: The rehabilitation phase for transplant patients includes a weekly visit to UHN. It is not unusual for this visit to last up to 8 hours as it includes diagnostic tests, assessments by the multidisciplinary team, and travel time. Patients find this physically demanding and typically lose up to 20 % of their weekly rehabilitation time. In the Urban Telehealth Initiative, in-person clinic visits have been replaced videoconferencing visits.
RESULTS: Videoconferencing local post-operative consultations are a fundamental change in the management of organ transplant recipients. Although this is a new initiative, the evaluation phase will include a report card with performance indicators of quality, access, acceptability and cost.
CONCLUSION: Telehealth programs have traditionally focused on geographically remote patients. This presentation will demonstrate that videoconferencing can be used as a fundamental mode of care delivery within urban settings to improve the quality of the patient experience across the care continuum. Lessons learned and preliminary findings from the Urban Telehealth Initiative will be shared.

P2.07 CRITERIA FOR EXPANSION AND INTEGRATION OF THE LUNG CANCER TRIAGE AND FOLLOW – UP CLINIC

Winton T[1,2], Butts C[1], Janzen H[1], Reiman T[1], Fields A[1], Cummings G[1], Hoeber M[1], King C[2], Allen D[1], Scrimger R[1], Graham N[1], Reinbold D[3], O'Neill S[3], Bexfield D[4].
[1]Alberta Cancer Board (ACB), Edmonton, AB. [2]Capital Health (CH), Edmonton, AB. [3]Peace Country Health (PCH), Grande Prairie, AB. [4]David Thompson Health Region (DTHR), Red Deer, AB.

INTRODUCTION: lung cancer is the most commonly diagnosed lethal solid organ malignancy in men and women worldwide and, given the history of smoking in the rapidly expanding aging population at risk; it is increasing in incidence and prevalence. The present system of physician focused care delivery is less than optimal. Delays in investigation and delivery of definitive treatment are common. Although tertiary oncology care resources are concentrated in urban centers, all Albertans and all Canadians deserve timely access to comprehensive care.
DESCRIPTION: A multi-region telehealth lung cancer triage clinic was initiated to serve rural patients in Central and Northern Alberta. The multidisciplinary team has identified specific outcomes of the clinic that will assist with integration of the clinic into a regular program and apply this clinical model to successfully expand the clinic to Southern Alberta.
RESULTS: The program will quantify benefits such as reduced patient travel and expenses, decreased wait times and reduced duplication of tests as well as provide communication and mentoring opportunities between the urban Territory and rural Community Cancer sites. Access to the telehealth equipment in a clinical area is critical for integration. Diagnostic images are easily read when presented using PACs system. Guidelines for the investigation and treatment of lung cancer patients for family or referring physicians need to be developed.
CONCLUSIONS: The program will apply the lessons learned in the Telehealth clinic to improve access, decrease wait times for a definitive diagnosis and create a coordinated treatment strategy for rural Albertans.

P2.08 TECHNICAL CHALLENGES AFFECTING CLINICAL AND OPERATIONAL STABILITY IN REMOTE FIRST NATIONS COMMUNITIES: A TELEHEALTH SCHEDULER'S PERSPECTIVE

Stevens A.
Telehealth Scheduler, Keewaytinook Okimakanak, Balmertown, ON.

INTRODUCTION: Telehealth Schedulers face a variety of technological challenges in providing clinical and operational services to our remote First Nations. The keys to adapting to these challenges are technological flexibility and patience. In remote communities where there exists a reliance on satellite and conventional telephone services the affects of weather and sunspots can disrupt the stability of transmissions. In many cases alternatives do exist to complete the task at hand.
DESCRIPTION: When communicating with Community Telehealth Coordinators, the preferred method is via IP phone. But the IP phones can go down due to weather or sun spot activity, which affects the satellite signals. Nearly half of our communities in the Sioux Lookout area are serviced via satellite IP technology. The remainder use video-conferencing equipment, which is based on land-line systems. When delivering video-conference training sessions or consults, these units may fail from lightning strikes and power outages or UPS battery burn-outs.
RESULTS: In spite of these specific challenges and more we are still able to grow our service to these communities through technical training, on the job troubleshooting and teamwork.
CONCLUSIONS: The statistics speak for themselves and our ability to adapt. Diabetes clinics, which used to be once a year, are now twice a week. Elders are happy that they do not have to leave their homes, struggle with air flights and the subsequent apprehensions. Psychiatric referrals, which averaged once a year, are now four to six times a week.

Session P3: e-Learning & Underserviced Communities

Posters P3.01-P2.10
Posters on Display throughout conference
Oral Overviews: Tuesday, September 27, 2005, 1030-1200
Room: Tache

P3.01 UTILIZING TELEHEALTH TO FACILITATE CHANGE IN THE UNIVERSITY OF ALBERTA'S DENTAL OUTREACH PROGRAM

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INTRODUCTION: The University of Alberta's Dental Program is undergoing strategic development that will facilitate increased delivery of care in rural remote satellite dental clinics. These clinics provide an important educational opportunities for students and care for underserved communities. In order to facilitate increased clinical provision, telehealth is being examined as a means to maintain educational continuity and to manage complex patient care.
DESCRIPTION: As the University of Alberta's Dental Program increases both the length and number of rural remote rotations that students will experience, the need to facilitate improved communications between the school and the remote clinics rises. Students require access to lectures and seminars for educational continuity, and patients require access to additional specialists for provision of complex care. Telehealth technology is being assessed to determine if videoconferencing links between sites can support both student and patient requirements. Students should be able to continue to participate in all aspects of their educational program, though they will physically be away for more of the conventional program. Improved case management for patients and continuity of care, through increased access to dental specialists, is also anticipated
RESULTS: With base telehealth infrastructure in place, the strategic development of the Dental Program continues, allowing for growth in the number of satellite dental clinics, and changes to the curriculum for students to be able to spend increased time on rotation.
CONCLUSIONS: These developments are in their early stages and outcomes measures are being drafted to determine the success of both clinical and educational strategies.

P3.02 UTILIZING A "VIRTUAL COMMUNITIES OF PRACTICE" CONCEPT AS CATALYST FOR ACCEPTANCE OF NOVEL TELE-DENTISTRY E-LEARNING INITIATIVES

Yacyshyn JR[1], Zakariasen KL[2].
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INTRODUCTION: The concept of Communities of Practice has demonstrated its potential for creating effective collaborative entities. This concept can be utilized to design an inclusive educational model for students and practitioners. Unique province-wide telehealth programs at the University of Alberta facilitate the development of Communities of Practice. This collaborative approach is a significant shift to the traditional CPD course delivery for the Department of Dentistry.
DESCRIPTION: Certain dental courses, at the University of Alberta, introduce cutting-edge material and concepts to the students. Some course content is provided by specialists affiliated with the program, from other locations. Telehealth has been beneficial in linking these groups. Past initiatives, for example, have focused on bringing all Orthodontists, in Alberta, together in such a program. Private practitioners are encouraged to participate with students and are provided Continuing Dental Education Credit. These programs are the catalyst for growing true Communities of Practice.
RESULTS: Satisfaction and feedback surveys on these types of telehealth initiatives provide insight into the participants experience and allow for outcomes assessment of pilot projects. Overall a positive experience, and appreciation for the benefits of a collaborative program, leaves participants indicating their interest in participating in more programs of this nature.
CONCLUSIONS: Positive responses to past programs have created the opportunity to evaluate other offerings for delivery in a similar fashion. These projects have also initiated investigation into how the Dental school may facilitate development of groups into self-organizing, learning groups, in line with the Communities of Practice concept.

P3.03 TELELEARNING: A CASE STUDY APPROACH TO ONCOLOGY HOSPICE PALLIATIVE CARE

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[1]Alberta Cancer Board, Edmonton, AB. [2]University of Calgary, Calgary, AB.

INTRODUCTION: Hospice Palliative Care Telelearning was developed from a need expressed from colleagues in rural areas of Alberta. They required specialized learning opportunities closer to home. Interdisciplinary teams from two Regional Health Authorities (RHA) and two Tertiary Cancer Sites joined together to facilitate oncology hospice palliative care telelearning in Alberta within a collaborative framework.
DESCRIPTION: Each team will write case studies using a clinical template that reflects the Canadian Hospice Palliative Care Association domains of issues associated with illness and bereavement. For eighteen biweekly sessions, one team will present their case study to the group and one team is responsible for responding, however interactive discussion is encouraged.
RESULTS: Colleagues from the University of Calgary provide guidance and expertise to conduct the literature search and project evaluation. The team has set these objectives:
1) Develop a telelearning framework for oncology hospice palliative care in Alberta
2) Foster professional development of hospice palliative health care professionals through multi-site videoconferencing
3) Develop a case study/content delivery format that is effective for telelearning via videoconference
4) Enhance knowledge sharing among project partners
5) Investigate potential telementoring opportunities and processes
6) Develop a process to capture and re-use the learning opportunities, e.g. record sessions; printed booklet of case studies
CONCLUSIONS: Early outcomes suggest this telelearning method is effective and productive for sharing assessment tools, resources and knowledge around hospice palliative care for both rural and urban areas.

P3.04 WEBOLUTIONIZING EDUCATION: AN INNOVATIVE APPROACH TO PROFESSIONAL DEVELOPMENT

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Saint Elizabeth Health Care, Markham, ON.

INTRODUCTION: Establishing a dynamic learning environment that supports the development of competent knowledge workers presents unique challenges in home care due to the vast geography and the diversity in staff and client populations. This presentation will bring to life the experience of how one home health care organization is meeting this challenge through the webolution of their orientation and continuing education programs.
DESCRIPTION: The virtual learning environment has created a web of knowledge that supports both existing tasks and includes emergent knowledge, talents, and skills, while harvesting the intellectual capital of expert staff. This environment combines modules (content based) with interactive communities of learning. Virtual learning has been successfully integrated within nursing orientation, and is being utilized for many continuing education initiatives with both professionals and para-professionals.
RESULTS: Evaluation has been positive. Analysis has demonstrated good compliance with the completion of knowledge tests linked to the modules, and close to 100% participation within associated communities of learning. Employees within the environment have provided positive feedback, focusing on ease of use, accessibility, and richness of content. Outcomes associated with selected programs delivered within the virtual learning environment will be presented.
CONCLUSIONS: A user friendly and accessible virtual learning environment is proving to be an effective professional development system for employees within a home care organization. As a system that supports staff connectivity, knowledge creation, exchange and development, while promoting a healthy work environment for today and tomorrow, this system has great applicability to many areas within the health care system.

P3.05 TELE-PHARMACY

Loyola M.
Information Management and Information Technology, Interior Health, Kelowna, BC.

INTRODUCTION: As the global pharmacist shortage increases and pharmacist recruitment/retention to rural communities becomes more challenging, Interior Health Authority developed and implemented a technological solution to the crisis – TelePharmacy.
DESCRIPTION: Tele-Pharmacy is an innovative way to help improve the ways our staff, physicians and patients access one another. Telepharmacy was initiated when one rural hospital was unable to recruit a hospital pharmacist; it turned to the Area Regional Hospital pharmacy in for help. The problem was solved by using video equipment instead of an on-site pharmacist to supervise and monitor the work of a pharmacy technician at the rural site. The technician completes the computer order entry function, prepares the prescription, and faxes a completed Medication Administration Record to the pharmacist to verify. The technician displays to the on-camera remote pharmacist, the patient specific packaged medication indicating the drug name, strength, patient name, doctor's name, and directions. The medication is then sent to the Nursing station by the technician.
RESULTS: Since the inception of the program pharmacists have been supervising all medication administration at the remote sites through videoconferencing. As a result safer medication practices are occurring with minimal impact to human resources; in addition through Tele-Pharmacy vacation, sick and education leave of solo charge pharmacists is being covered.
CONCLUSIONS: Through Tele-Pharmacy, the pharmacist can meet their professional responsibilities of reviewing all prescriptions before dispensing.

P3.06 A NETWORK WITHIN A NETWORK: HOW GREY-BRUCE HEALTH SERVICES IS USING VIDEOCARE TELECONFERENCING TO MEET INTERNAL AND EXTERNAL NEEDS

McGregor K[1], Eldred C[1], Robinson D[1], Kroeker A[2].
[1]Organizational Development and Learning, Grey-Bruce Health Services, Owen Sound, ON. [2]VideoCare, London Health Sciences Centre, London ON.

INTRODUCTION: Grey-Bruce Health Services encompasses seven sites in the most northerly sector of Southwestern Ontario. Due to large distances between sites and challenges posed by winter weather, the organization was an early adopter of VideoCare teleconferencing, seeing potential benefits for patients, staff and clinicians.
DESCRIPTION: In 2002-03, all seven sites had cameras deployed. Starting in February 2003, various indicators were tracked to determine system usage. These parameters included the type and duration of call (clinical, education, administrative), the departments and sites participating, and the frequency of call completion. Based on initial usage, a second camera was deployed at four of the sites at the end of 2003-04.
RESULTS: Between fiscal 2003-04 and 2004-05, total calls rose 27%, while call minutes rose 45%. The percentage of calls internal to Grey-Bruce sites remained constant around 60% for both years, with 40% linking to external locations. The completion rate of calls rose slightly from 75% to 80%. Largest users in the first year were Clinical Support, Administration, Dialysis, Telehealth and Medical Rounds, (89% of the calls and 86% of the minutes). In the second year, Stroke Strategy, Mental Health and Other Clinical rose to surpass Telehealth, and the top five users dropped to 74% of the calls and 75% of the minutes.
CONCLUSIONS: With time, more areas within the hospital began to use the telemedicine system. Administration and education areas were early adopters due to challenges associated with integrating into the clinical area. Over time, clinical areas adopted the technology.

P3.07 SUCCESSFUL INTEGRATION OF A TELEHEALTH PROGRAM INTO A REGIONAL HOSPITAL

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NORTH Network, NW Regional Telehealth Program, Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON.

INTRODUCTION: Thunder Bay Regional Health Sciences Centre is a 375 bed facility that services a rural catchment area within northwestern Ontario the size of France. At times distance, weather, cultural issues, and bed availability have been barriers to receiving care at the regional hospital. By incorporating Telehealth into how a regional hospital delivers its services, some of the barriers can be eliminated
DESCRIPTION: In the 18 month period Jan. 2004 - June 2005 there was a phenomenal growth within the Telehealth program. Almost every discipline incorporated Telehealth into how they serviced their regional patients. Mobile Telehealth units assisted in the integration of Telehealth into daily clinical practice settings. Telehealth was also used to support the training of family practice, paediatric, surgical, psychiatry and internal medicine residents who train in Thunder Bay and within the region.
RESULTS: Caregivers at TBRHSC recognized the importance of patients in the region receiving care close to home and embraced use of Telehealth. During an 18 month period, 3800 patients received services via telehealth out of Thunder Bay Regional Health Sciences Centre More than 400 educational opportunities were offered to both patients and health care providers. Clinical and educational support to providers and patients via Telehealth allowed access to care closer to home.
CONCLUSIONS: It is evident Telehealth can play a crucial role in the management of patients with complex or chronic illnesses who require the services of a regional hospital.

P3.08 MB TELEHEALTH EXPANSION AND PARTNERSHIPS IN FIRST NATIONS COMMUNITIES

Sanderson B.
MB Telehealth, Winnipeg Regional Health Authority, Winnipeg, MB.

PURPOSE: This presentation will provide an opportunity to share the experiences of the MBTelehealth program as we move forward in the expansion to First Nations communities in Northern Manitoba.
DESCRIPTION: The MBTelehealth program began the search for opportunities to expand the program to northern First Nations communities in 2004. Currently MBTelehealth has 21 rural sites, 2 of which are in First Nations communities and 6 Winnipeg sites operating under the Winnipeg Regional Health Authority. MBTelehealth is working in partnership with communities and funding agencies to expand to an additional 10 sites in response to the demand for health resources in the north. This presentation will discuss the process involved to engage stakeholders, address jurisdictional issues and highlight the successes and challenges involved in integration of the program to date.
RESULTS: The introduction of the MBTelehealth program has been met with both interest and excitement. The use of needs assessments, structured implementation strategies and an integrated focus have been critical for successful deployment developed.
CONCLUSIONS: The success of the MBTelehealth expansion to remote, northern communities is dependant on the development of partnerships between the MBTelehealth program, communities and the funding agencies. Integration of the program is essential to sustainability and to the continuity of care for our communities.

P3.09 PROVIDING PEDIATRIC TB CLINICS AT A DISTANCE

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INTRODUCTION: A Pediatric Tuberculosis (TB) Clinic has been established between the specialist at Children's Hospital in Winnipeg and the northern Telehealth Site of Thompson, Manitoba, 760 kms north of Winnipeg.
DESCRIPTION: Assessment and treatment of pediatric TB clients previously required the child and escort to travel from isolated northern communities to Winnipeg's Children's Hospital. This travel had a negative impact financially and personally to the patient, resulting in higher

no-show rates and higher rates of non-compliance with the patient's treatment program. A Pediatric Respirologist has noted an increase in compliancy with scheduled visits and treatment regime with telehealth clientele. Currently, these clients are seen for initial consultation, follow-up, and upon completion are released from the regiment of care using interactive videoconferencing supplemented by stethoscopes for chest sound transmission.
RESULTS: As a result of the positive benefits to the clinic and the patients, there has been a dramatic increase in the utilization of telehealth for providing these clinical sessions with 140 sessions taking place between February 2004 and February 2005. In 2004, the clinic saw 35% of their patients via telehealth as compared to 5% in 2003. Methods for integrating the clinic into regular practice will be presented along with the identification of challenges seen to date.
CONCLUSION: Pediatric TB Clinics have proven to be a successful application of MBTelehealth. Utilizing the digital stethoscope and collaboration with staff from the surrounding nursing stations completes the required assessments vital for this service.

P3.10 USING TELEHEALTH TO ENHANCE CONSULTATION HEALTH SERVICES AND BUILD COMMUNITY CAPACITY IN REMOTE COMMUNITIES IN NORTHERN ALBERTA

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INTRODUCTION: There are major healthcare delivery challenges in northern and remote Aboriginal communities such as Fort Chipewyan and Little Red River Cree Nation. An alternate approach that offers a sustainable platform for service delivery is a Capital Health-First Nations and Inuit Health Branch (FNIHB) partnership that builds local community capacity for development of services through the use of Telehealth technology.
DESCRIPTION: In Fort Chipewyan, the focus has been on rehabilitative services. Through the Needs Assessment, a Distance Rehabilitation Service Delivery Model for remote Aboriginal communities will be developed, piloted and assessed for application. In Little Red River Cree Nation, a community development approach is being used to facilitate service delivery. Within the context of both models, telehealth will facilitate greater access to specialists and services and build community capacity through educational training sessions.
RESULTS: Lessons learned to date are: Buy-in from stakeholders (i.e. community members, band council, service providers, senior management) is imperative, commitment to long-term development, acknowledgement and respect of cultural protocols is vital to building strong relationships; perseverance in maintaining communications through all mediums is very important; and technical/logistical difficulties will happen.
CONCLUSIONS: As a result of completing this project the partners will have mutual increased knowledge of the challenges and possibilities of health care service delivery in both Aboriginal communities. The expected outcome of this project is an enhanced standard of care for Aboriginal patients using culturally appropriate strategies and interventions. Lessons learned will be used to implement other FNIHB telehealth projects in the future.

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