Use of ICT in cancer care services in Canada
AM House, MD; Kara Laing, MD; Jonathan Greenland, MD; Janice Cooper, MSW
Project Overview

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eHealth Research Unit
Faculty of Medicine
Memorial University of Newfoundland Labrador

Contact Information:
A. M. House, O.C., M.D., FRCPC
Level 1, Room 1778
e-Health Research Unit
Health Sciences Centre
Faculty of Medicine
Memorial University of Newfoundland Labrador
St. John's, NL A1B 3V6
Tel: 1-709-777-8813
Fax: 1-709-777-8838
E-Mail: maxhouse@mun.ca
**Background:**

How best to provide specialized medical services in rural and remote areas is a major challenge for every province and territory. In January 2005, with the support of the Lawson Foundation, the Dr. H. Bliss Murphy Cancer Foundation, the Newfoundland Labrador Department of Health and Community Services, and Novartis Pharma Canada Inc., the Newfoundland Labrador Teleoncology Program (Hyperlink) was established to address some of the issues around the delivery of specialist oncology services in rural Newfoundland.

This program was quite successful. Since it began, hundreds of patients have received care in their home communities via Telehealth consultations. Over a thousand health care professionals and support staff have participated in cancer care rounds, skill development, and knowledge exchange using these technologies. Radiation oncology virtual clinics are now regularly held, connecting patients across the province with cancer specialists in St. John’s. These measures have improved patient care, reduced provider and patient travel, decreased wait times for some patients, and allowed patients to have a better quality of life by allowing them to receive their treatments in their own communities, close to their families and other supports. It is no surprise then that the Newfoundland Labrador Medical Association recently reported that the program “is quickly gaining the support and interest of patients, physicians and health care administrators in the province.”

The Newfoundland Labrador Teleoncology Program demonstrates that Telehealth (video-conferencing) can improve patient care, improve quality of life and help support the sustainability of rural communities (refer to the Newfoundland Labrador Teleoncology Program Evaluation Report - Hyperlink). Given this experience, it is believed that the provision of cancer care and cancer education can be enhanced across the entire country through the greater use of Information and Communication Technology (ICT), e.g., video-conferencing, video-telephones, Store and Forward, internet, PDAs, EHRs, etc.

**ICT Project Overview:**

In Canada, we currently do not have a good understanding of what ICTs are being used, to what extent, and in what contexts in the delivery of cancer care. Building on the success and experience of the initial project (the Newfoundland Labrador Teleoncology Program), this project aims to fill this void by conducting a comprehensive scan of the use of ICTs in the delivery of oncology services in Canada. This study will allow us to see, as a country, where we stand with the use of ICT in the areas of cancer care and cancer education, and perhaps clarify the way forward for the further use of ICTs.

In terms of scope, the scan will examine:

1. Which ICTs are currently being used;
2. The extent to which these technologies are being used;
3. The context in which they are being used;
4. Whether there are any existing policies or guidelines regarding the use of Teleoncology;
5. Factors influencing the use and uptake of new ICTs;
6. The potential for expanding the use of existing and emerging ICTs.

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The results of this project will be used in a number of ways. The scan will allow cancer care centres to benchmark where they are in terms of their adoption of ICTs. It will identify centres which have not yet adopted ICTs which are known to be effective, e.g., video-consultations. It will increase the opportunity for collaborations and give greater exposure to best practices around ICTs. This study may even provide the groundwork for the development of a national strategy or guidelines around the use of ICT in cancer care.

Given the burden of cancer for our society, particularly for rural communities where specialized services are not close at hand, ICTs hold the promise of improving patient care and improving patient satisfaction by providing care in the communities where patients live. ICTs also allow rural communities to receive care on a more equal footing with larger urban centers. This environmental scan will help achieve these ends by supporting the further adoption of ICTs in cancer care.

The Project objectives are:

- To determine the ICTs currently being used in the delivery of cancer services in Canada;
- To determine the context and the extent to which these various technologies are being used;
- To analyze the usage patterns of ICTs in cancer care;
- To identify the factors that led cancer care institutions to adopt various ICTs;
- To identify best practices and lessons learned with the adoption of ICTs in cancer care;
- To examine the potential for expanding the use of existing and emerging ICTs; and
- To disseminate the findings of our environment scan.
Project Team Brief Bios

Max House (O.C., O.N.L., M.D., LL.D., F.R.C.P.C) is the Principal Investigator of the Newfoundland Labrador Teleoncology Program and a Professor Emeritus in Memorial University’s Faculty of Medicine. Dr. House has been a pioneer in both distance-education and telemedicine in this country. His career has been recognized in Canada and internationally. From 1997 to 2002, he served as Newfoundland’s Lieutenant Governor. In 2005, he was made an Officer of the Order of Canada.

Jonathan Greenland (M.D., F.R.C.P.C) is a Radiation Oncologist and a Clinical Assistant Professor of Medicine in Memorial University’s Faculty of Medicine. He serves on the Newfoundland Labrador Teleoncology Project Committee. He is also quite active both in medical education and in the medical community, where he serves on a number advisory boards.

Kara Laing (M.D., F.R.C.P.C) is a Medical Oncologist and Clinical Chief of Cancer Care for Eastern Health (NL). She is a co-investigator on the Newfoundland Labrador Teleoncology Program and an Assistant Professor of Medicine (hematology/oncology) in Memorial University’s Faculty of Medicine.

Janice Cooper (B.A., M.S.W.) is the Project Coordinator and an MSc Student in the Division of Community Health in Memorial’s Faculty of Medicine. She is also a consultant in the use of technology in the health and education sectors.

Cathy Peyton (BA, BEd, MEd.) is the Project’s Research Assistant. She is the Program Manager and Development Officer for the Atlantic Regional Training Centre. Cathy is also the Atlantic Coordinator for the EXTRA program. Her background is in adult education and program development and most recently in health professional education.

Michael Mooney, is a Senior Technical Consultant, Health Sciences Information and Media Service, Faculty of Medicine, Memorial University of Newfoundland and serves in the capacity of a technical advisor to the project.

Patricia Dwyer (R.N., M.Sc.) is an Advisor to the Project. She is the Program Manager, Telehealth, of the Newfoundland Labrador Telehealth Program. Trish has extensive experience in the development, implementation and evaluation of Telehealth projects and was the Teleoncology Project Program Manager. She also is responsible for the delivery of Informatics courses for nurses at the graduate and master’s level for two Schools of Nursing (Ontario and NL).