Health Canada
Office of Health and the Information Highway

E-Health Services in Home and Community Settings Workshop

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Canada

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The opinions expressed in this publication do not necessarily reflect the official views of Health Canada.

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Preamble

The Workshop on E-Health Services in Home and Community Settings brought together leaders and experts involved in the field of home and community-based health to explore the pan-Canadian integration of information and communications technologies (ICTs) into this vast and complex area of the Canadian health system.

Although we feel that the discussions, both formal and informal, could have gone on for much longer than the time that was allotted to the participants, we are more than happy with the results. We have gained better insight into the issues and challenges that people may face when trying to introduce new information technologies into such a diversified domain and the potential ramifications. We have also received interesting and challenging suggestions to help achieve the deployment of ICTs in home and community settings.

We wish to thank all participants for accepting to spend this day and a half, including part of a weekend, to share their views and perspectives on this subject with the staff of the Office of Health and the Information Highway.

INTRODUCTION AND CONTEXT

The demand for home and community-based health care services is growing in Canada. Whether they support post-acute monitoring of patients recovering from surgery, or help maintain elderly people in their homes by providing them meal and homemaking support, transportation or on-site physiotherapy, these services have become an integral part of the care delivery process.

During the past few years, significant progress has been achieved establishing a health infostructure in the Canadian health sector. Common orientations and strategies, are in place and are being supported by current and planned investments at the federal, provincial, territorial levels. These orientations are captured in a National Blueprint and Tactical Plan developed by the F/P/T Advisory Committee on Health Infostructure and endorsed by the Conference of Deputy Ministers of Health. The communications infrastructure necessary to support electronic access to the health system, and information technologies, systems and applications that can support, facilitate and improve health care in Canada are slowly but systematically emerging in all jurisdictions. The critical mass needed for enabling the full deployment of information and communications technologies (ICTs) is coming into view.

Is the home and community health care sector benefiting from this progress?

The exploration of e-health - i.e. health-related services accessed and provided using ICTs - and its relevance and applicability to home and community settings has been underway for a number of years. Pilot projects and initiatives to experiment with ICTs in health, including some home and community related ones, have been funded at different levels, through programs such as Health Canada's Health Infostructure Support Program (HISP) and Health Transition Fund (HTF), and currently through the Canada Health Infostructure Partnership Program (CHIPP). Consultations and discussions among stakeholders, along with results from those pioneering projects, have provided insight into the challenges and barriers facing the use of ICTs in home and community care settings. Privacy, confidentiality, security, licensing, reimbursement, and standards for interoperability and connectivity have been identified as major barriers to the uptake of ICTs in the health system. These challenges are also relevant in the home and community health domain, which includes numerous types of services including primary care, home care, community care and public health. But there is still a need to look more closely at the specificity of home and community settings, and at how they could integrate ICTs in daily access to and provision of health services.

The Workshop on E-Health Services in Home and Community Settings was held to provide a selected group of people, with expertise in home and community care and/or the implementation of ICTs, an opportunity to discuss and explore issues about e-health services in home and community settings. More specifically, the objectives of the workshop were to:

- Identify lessons learned from the implementation of ICT projects such as HISP, HTF, CHIPP and other projects;
- discuss and exchange success stories, challenges and opportunities; and
- Identify recommendations for future action.

The general goal was to develop recommendations for priority areas for action and tactical options to guide future federal, provincial and territorial activities in this sector of the Canadian health system.

VIEWS AND PERCEPTIONS

The meeting started with a round table of participants sharing their expectations for the workshop, and their views, experiences and frustrations in relation to the use of ICTs in the home and community health care sector.

Participants' expectations for the workshop included the opportunity to promote awareness and understanding of home, community and long-term care –to deepen the discussion and build a "common understanding and direction." Participants were looking to develop recommendations for concrete, doable ideas on next steps for moving forward in bringing e-health to non-acute care settings.

In their discussion about the implementation and use of ICTs, participants expressed in general frustrations in implementing ICT-related project on two levels: 1) the difficulty to implement projects and demonstrate benefits in an environment where they feel a general lack of support and recognition of the home and community sector in itself, of its growing importance in the provision of health services to Canadians, and 2) conducting this experimentation in a very complex, multifaceted sector of the health care continuum involving a very diverse range of settings, care providers, clients, and health needs, where financial resources are scarce, and the sector is not always well understood by technology developers.

As one participant stated, "there is no attention [given] to the non-acute care sector." Another noted that "key decision makers" are not preoccupied with the home and community care sector," while someone else echoed that the sector "keeps falling off the table." It was stated that people involved in all health care sectors needed to "start cooperating instead of competing" with one another. In addition, it was felt that the scope of discussion would gain in being broadened, and that these issues should be addressed not just as "health" issues, but also as "community" issues.

For some participants, a source of frustration is the lack of progress and the overall slow movement to bring e-health into home and community care settings. There is visible and accepted merit to the concept, but, as one participant stated, "it is taking too long to get things done."

On the other hand, some participants noted that it is important to take the time to ensure that the right systems and methods are implemented, rather than moving forward on "superficial successes." As a participant put it, there is a need to "support investigating, building and learning" and, as another added, to develop an "understanding of how things should evolve."

As the deployment of ICTs moves forward, trust about information systems themselves and their added value must be established. Some participants felt that there is still greater comfort with the "paper world". There is resistance to changing to a different system where benefits to each stakeholder are not yet clear. It was noted that consumers are often more open to new ways of care delivery than providers themselves.

Some participants also felt that common definitions and understanding need to be built around the sector before it can be supported by ICT initiatives. A common understanding of e-health, telehealth, and other such terms is also required, along with an understanding of benefits they could bring to the home and community care processes.

There was a view that e-health should be seen as a "tool" rather than a solution or program in itself. In this light, it would be important that a clear understanding of e-health and its functions be reached. Such functions could include:

- supporting clinical decisions at the point of care;
- enabling front line workers to communicate with each other;
- facilitating the transfer of knowledge;
- providing for information collection and management; and
- enabling the delivery of care at a distance and in remote locations.

It would also be essential that strategies and projects be developed that would focus on five discrete stakeholder groups and their needs:

- client/patient/consumer;
- informal caregivers;
- formal providers;
- policy developers;
- managers.

Some participants noted that ICTs are seen as an "add on" cost in the health world, instead of as an investment for improving patient care and health outcomes. One participant even challenged the group to demonstrate that ICT investments would be at least as beneficial as investing similar amounts of dollars in more homecare services. Other participants felt that there was evidence of the benefits, in tele-monitoring for instance, but that cost-effectiveness still needs to be demonstrated.

Participants pointed to the fact that a number of ICT-related initiatives and projects are underway in various jurisdictions, and that little has been done to date to capture information about them, assess results, and share lessons learned and best practices. Effective measures for gauging ICT applications' benefits to patient health and their impact on home and community care will need to be put in place. As well, it was pointed out that expectations, in particular at the political level, are difficult to manage.

Participants felt that key to the future deployment of ICTs in the sector is ongoing support for pioneering projects until true value is demonstrated. Some participants estimated that financial support, such as the CHIPP Program for instance, was not well adapted to the requirements of experimentation in the field. Participants stressed that if it is difficult to raise

venture capital to support innovation in the health sector, it is even more difficult in the world of home and community care where resources are scarce and dispersed.

Another important factor raised is the involvement of consumers. Some participants felt that they should be made aware of the possibilities offered by ICTs for home and community settings. Some participants argued that the demand for recognized beneficial e-health services by consumers could accelerate investment and implementation. Little seems to be done to inform and educate the public. Finally, few ICT implementation initiatives have addressed the issue of change management. If cultural change is needed, it can only be achieved through strategies that will take into account human resource needs for understanding new environments and roles, and for training with new technologies and processes generated.

A table of lessons learned, successes and challenges identified by participants during the workshop is appended as Annex 1.

KEY MESSAGES

Participants agree that, although home and community care is experiencing a rapid growth period and will continue to do so in the future, not enough attention is given to this sector of the health system. Ways of integrating home and community settings with other health care sectors need to be found.

The pace of uptake of ICTs in home and community settings is slow but, if people agree to their usefulness, they also caution that ICTs must respond to needs and be appropriate.

The understanding, learning and building "phase" is only beginning. Expertise must be developed throughout the field and among all actors, including consumers, to increase trust in new ICT-based systems and increased acceptance of new processes.

Major barriers to ICT implementation in home and community settings include the scarcity and dispersion of financial resources, and also current funding avenues that do not allow sufficient resources for evaluation and sufficient time for experimentation, so that projects can reach maturity and demonstrate benefits.

RECOMMENDED PRIORITIES FOR ACTION

Participants recommended three areas for priority action: leadership, devices for creation and dissemination of knowledge, and sustained funding and collaboration.

Participants worked in three small groups to address the following questions:
How do you see the future in three years or so from now? What strategies and activities are needed to move to that future?

Group A: Leadership

- Develop the business case in support of doing e-health.
- Look at specific areas where we have had success and develop these further to build the business case.

Within a three-year time frame, a framework should be in place against which to measure activity in the home and community sector and marketing of ICTs to stakeholders should have begun. Information sharing on successes, best practices and lessons learned is ongoing.

Strategies to achieve this goal include developing mechanisms to facilitate information sharing, and development of linkages at the delivery level and with the community for ongoing feedback.

Group B: Devices for Creation and Dissemination of Knowledge

- Information system with some basic/standardized data.
- Provision of recognized expertise (success and failure) to help make appropriate technology choices.
- Build the capability to track and assess the projects that are currently being tested and to capture lessons learned and build on them.
- Start with have-not provinces and develop the data system.
- Develop the demand among consumers.
- Learn from communication/engagement strategies that have already been successful in the health system.

The lead strategy is the creation of a virtual team of experts to provide "basics" needed for ICT projects. The "basics" will be developed from a review of existing projects and their lessons learned (successes and failures). The team would be comprised of experts from technology, clinical and research disciplines as well as leaders/experts from the home and community care sector. In addition to assessing ICT projects, the team would advise on communications strategies to build stakeholder and consumer awareness.

Group C: Sustained Funding and Collaboration

- Continue to support experimentation.
- Look at creating/developing a patient-centred, multi-disciplinary team approach to supporting vulnerable populations and self-care in healthier populations.
- Need money to fund programs long enough to determine if they are useful. Consumers need to determine which ones should be preserved and maintained.
- Put an infrastructure in place that will enable the front line workers to communicate with one another. Find an IT solution to solve this problem. Move to sustained funding.

In three years, the group would like to see successfully integrated models/projects which have demonstrated their value and are imbedded in the reform process. There would also be funding for up to 5-6 years (including evaluation). Projects longer than three years would have to demonstrate success in order to secure funding for the remaining three years. It was noted that it takes at least 5 years to collect solid evaluative data. The group would also like to see a Canadian Network of people sharing lessons, and an advisory council of front line workers to advise government.

In summary, participants suggested that action priorities focus on three themes:

- the need to develop and have access to a pool of expertise;
- the need to collect and disseminate information; and
- the need for sustained funding.

NEXT STEPS

In conclusion to the workshop, the Director General of the Office of Health and the Information Highway reminded participants that in shaping the future directions for the deployment of ICTs in home and community settings, we should strive to respond to some basic questions:

> *Will this result in more equitable provision of care?*
> *Will it result in better care and better access to care?*
> *Will it drive efficiencies in the system, i.e. will clinicians have more time to spend providing care to patients?*

The ideas and priorities that have been identified during this workshop will be important to help move forward on e-health for home and community settings. As conceptual work continues on the deployment of ICTs in home and community settings, efforts will be made to create visibility around projects and initiatives that are already underway and their results.

ANNEX A

LESSONS LEARNED, SUCCESS FACTORS AND CHALLENGES

The following presents lessons learned, success factors and challenges related to e-health in home and community care settings, as recorded by participants at the workshop. They are grouped around the following headings used in the Tactical Plan (appendix C).

- Technology
- Organization/People
- Information
- Processes
- Standards

Table 1: Technology

Lessons Learned	• Implement on needs, not technology availability. • No "perfect fit"/ no "turnkey" – need to modify and test in each environment, or develop own solutions. • Provide value at each level. • Involve front line staff in decision-making. • Workflow, workflow, workflow. • Scaleable and suitable integration. • Be realistic re: goals. • Continual buy-in from responsible authorities. • Proper investment in training. • Coordinated approach – don't reinvent the wheel. • Tap into some "independent" sources of information and support, e.g., Veterans Affairs in Canada and U.S.
Success Factors	• Useful to professionals (user friendly) and appropriate and helpful to consumer groups – need Canadianization. • Focus on contracts. Protect yourself. Understand deliverables. • Manage expectations.
Challenges/Barriers	• Getting "consensus" opinion. • Being able to get "appropriate" consumer representatives to reflect public interests which can be heard as loud as "professional groups." • Preparing justification for certain expenses and uncertain benefits.

Table 2: Organization/People

Lessons Learned	• Consumers (individuals and families) more ready in many cases than health organizations. • Create a dynamic environment with lots of positive people and ideas and "hype." • Communications. • "Hype" must be accompanied by impact for long-term buy-in. • providers challenged by role changes. Challenges to current practice – need them to see value/benefit. • Involve the community and consumers. • Determination/education of what is in it for them. • Leadership/champion/vision. • Board and CEO support. • Involve "stakeholder" representatives – physicians, leaders, nursing, pharmacy groups, consumers.
Success Factors	• Include consumers at design and justification and approval and implementation stages – at the table. • At the "beginning" of project – not to be viewed as add on/late entry.
Challenges/Barriers	• "Government control" of information provided so as to put best political spin rather than inform professional partners and public. • "Boomers" are demanding and numerous, will expect results and quickly: risks?

Table 3: Information

Lessons Learned	• The efficacy and ability to use information is as important as its delivery. • Need to fund. • Need a lead organization to make it happen. • Recognize the commonality of data across sectors. • Information needed in community not necessarily same as other sectors. • Use existing credible data as a baseline for analysis. • Begin with accountability framework, not data. • Information – knowledge. • It's not the system – it's how you implement and train. • Information should be challenged.
Success Factors	• Develop techno-friendly attitudes among health professionals. • Focus on end-to-end quality. • "Open the books" – collaborate with researchers. • Develop "trust" of information sources – upstream and downstream.
Challenges/Barriers	• Providing information/remaining at a distance so that studies are not viewed as "biased."

Table 4: Process

Lessons Learned	• Complements established methods. Let participants do what they are responsible for. • Invest in the entire process – it is not enough to buy software and after brief initial training expect staff to use it. • Find your honest critics as well as your champions. • Need to be able to articulate processes. We talk different languages? • Need to integrate e-health with current delivery practices to understand most valuable component and adaptation required for success. • Be prepared to fail, fall and start again. • Clinical and organizational processes seem to be like "tectonic plates," under constant pressure to change but undergoing major shifts infrequently. ICT can be seen as a disruptive influence whose major role is to precipitate these shifts. • Include a change management process.
Success Factors	• Keep on demonstrating benefits of systems installed and operating; explain benefits to various stakeholders.

Table 5: Standards

Lessons Learned	• Need to fund involvement of all pertinent groups. • Need economic incentives to ensure application of standards. • Need a strong federal role in standards. • Need to be kept to a minimum with clear definitions – usually happens after the fact rather than before. Needs to occur earlier in the process. • Standards (organizational, clinical, technical) emerge as a consequence of experience and evidence. Poorly conceived and premature standards can be as negative as sound standards are positive. • Support standards development at all levels (local/federal/provincial/international).
Success Factors	• Standards are essential but useless unless people "buy into" standards and use them. • Coordination of standards needed with interlocking agreements.

ANNEX B

AGENDA

E-Health Services for Home and Community Settings Workshop
Hotel Château Cartier - Aylmer, Québec

Sunday, March 17, 2002 5:00 - 5:15 p.m	**Welcome**	*(15 minutes)*
5:15 - 5:45 p.m.	**Presentation – history and context**	*(30 minutes)*
5:45 - 7:15 p.m.	**Roundtable (introduction of participants, presentation on experiences and opportunity to express expectations, views, concerns, issues)**	*(90 minutes)*
7:30 p.m.	***Dinner - Albatross Restaurant***	
Monday, March 18, 2002 8:00 a.m. 8:30 - 8:45 a.m. 8:45 - 10:15 a.m. 10:15 - 10:30 a.m. 10:30 - 12:00 p.m.	**Artiste B Room** ***Continental breakfast, Artiste A Room*** **Recap of roundtable and model for discussion** **Discussion on lessons learned from implementation of ICT-related projects in home and community settings** ***Health Break*** **Discussion on success factors, barriers, challenges**	 *(15 minutes)* *(90 minutes)* *(90 minutes)*
12:00 - 12:45 p.m.	***Lunch - Artiste A Room***	

12:45 - 2:15 p.m.	**Exploration of views to foster implementation of e-health services for home and community Settings**	*(90 minutes)*
2:15 - 2:30 p.m.	**Health Break**	
2:30 - 3:45 p.m.	**Exploration of different strategies/options to promote and support integration of e-health services for home and community and identification of priority for actions**	*(75 minutes)*
3:45 - 4:00 p.m.	**Wrap-up**	*(15 minutes)*

ANNEX C

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