

**A**s explorers, inventors and iconoclasts have always known, the innovative spirit can be isolating.

The same holds true for people pioneering promising new applications for information and communications technologies (ICTs) in health care, which by their very nature are uncommon, cutting-edge, even unique.

And yet, nowhere is the need to link up, to share information with others, to create a common body of knowledge, more pressing than in this field. Because each initiative has the potential to enhance the well-being of Canadians or to contribute to the sustainability of the health care system, it is essential that the experiences be widely and swiftly shared.

It is as complex a challenge as it is urgent. Success will demand the support of all quarters - researchers, health professionals, administrators, non-governmental organizations and governments alike.

At OHIH, Health Canada's Office of Health and the Information Highway, we have no vested interest in any particular structure or mechanism. We can, however, serve as a catalyst for action, encouraging all parties to participate in a shared solution.

To underscore our concern, we have recently launched an important new Web-based resource. Known as the *ICTs in Health Initiatives Database*, it is a searchable online tool that enables health providers, researchers, administrators, policy-makers, analysts and other interested people to post and find information about initiatives involving ICTs in the health services field. (See sidebar on page 4). This database is one of many resources being shared through OHIH's ICTs in Health Infoway web site ([www.hc-sc.gc.ca/ohih-bis/](http://www.hc-sc.gc.ca/ohih-bis/)).

The web site is not a signal that the Government of Canada intends to lead a comprehensive information-sharing exercise among developers and users of ICTs in health. It is merely a spark for the process, highlighting one way of connecting people for the benefit of all Canadians.

## Understanding the challenge

Without question, the challenge is vast.

First, with so many people trying to apply ICTs in so many novel ways, we need a comprehensive and reliable mechanism for others to find out about the work. The objective should be to harness every potential resource in the search for new uses of ICTs in health and health care. The health care system has neither the time nor the money to waste on duplicated efforts or demonstrated failures.

Second, we need to be able to convert all our sources of experimental learning into knowledge. We need to be able to promote collaborations that can take ideas beyond the pilot stage to where they can have positive and lasting real-world impacts.

And finally, we need to be able to share our acquired knowledge. It is a fundamental principle of Canada's health care system that people are entitled to benefit equitably from initiatives that promise improved care, no matter where they happen to live.

Thanks to the spadework already performed by other sectors, we can use their experience to illuminate our thinking on translating information into knowledge and then aggressively sharing this knowledge.



-WILLIAM J. PASCAL -

# SHARING THE WEALTH FOR BETTER HEALTH

## The case for broader exchange of information about the use of ICTs in health

Bill Pascal, P.Eng, C.M.A., is the Director General, Office of Health and the Information Highway, Information, Analysis and Connectivity Branch of Health Canada in Ottawa.

[www.hc-sc.gc.ca/ohih-bis/](http://www.hc-sc.gc.ca/ohih-bis/)

## A Meeting of Minds

OHIH and its partners have launched a searchable online tool to allow researchers, health professionals, administrators, policy makers and others to post or find information about projects using Information and Communications Technologies (ICTs) in health care.

The new *ICTs in Health Initiatives Database* is designed to provide reliable, quality-controlled, timely and relevant information profiles on Canadian initiatives involving the use of ICTs in health - especially projects involving electronic health records and telehealth technologies.

The database is set up to enable contributors to describe their initiatives, including objectives, the organizations involved, target populations, the technologies used, funding, points of service, links to related Web sites, and contact information.

A unique feature of this database is that contributors may post background documents relevant to their projects, such as evaluation reports and multimedia clips. These can be downloaded by visitors to the site.

The database is, first and foremost, a tool for sharing information and experiences about ICT applications in the delivery of health services. It serves as a vital data source for researchers, and helps organizations and individuals find suitable health partners for collaborative activities. It also allows administrators and policy-makers to monitor trends and investments in ICTs in health, as a support to solid, evidence-based decision making.

While some portions of the database are accessible only to registered users, others are open to all visitors, including consumers.

The initial contributors to the database include the Government of Canada; provincial, territorial, regional and municipal governments; primary health care delivery organizations; acute and long-term care facilities; universities and non-governmental organizations.

**L**et's start with first principles:

We can surely agree that it makes sense to find better ways to share information about ICTs that improve either the functioning or the outcomes of the health care system.

Suppose, for instance, that a community health service agency in Quebec City has developed a simple, yet effective, technological application that gives travelling home care workers timely information about the next patient, as well as some guidance on the best course of care.

Over time, the agency accumulates extensive experience related to developing or acquiring the technology, implementing it and training staff, managing information and privacy issues, and evaluating the impact of the initiative on patient health, provider satisfaction and agency budgets.

Clearly, all this information would be of tremendous benefit to home care services right across Canada - all of them questing for better, more cost-effective ways to handle growing caseloads.

This scenario is one of many occurring in Canada right now.

But for all the excellent ways we are finding to improve both the health outcomes of Canadians and the efficiency of the health care sector, we have yet to develop a systematic way of sharing the know-how gleaned through our laudable, though disconnected, efforts.

## The rationale of sharing

Several questions follow. Why share knowledge? If it makes sense to share, what exactly should be shared, how do we do it, and who is going to make it happen?

**F**irst the why.

We share knowledge for several compelling reasons that, in sum, could be said to benefit patients, health care providers, institutions, government and non-governmental funding sources, and society at large.

Simply put, a lot of information related to the use of ICTs in health is a public good that is best converted to knowledge within the public domain. This truth holds from its collection clear through to its use.

For instance, in our publicly funded system, virtually all exploration of potential application of ICTs in health is sponsored by publicly funded institutions such as hospitals and universities, or with government.

Because the information typically concerns the public as patients or taxpayers, the resulting knowledge should be seen as being developed in the public interest, and therefore shared in the public domain.

Moreover, if the knowledge acquired through such projects is applied for the good of one segment of the public - home care clients in Quebec City, for instance - then it is only right that the knowledge be made as widely available as possible for the benefit of home care clients everywhere. Knowledge in the health care system becomes ever more powerful as it is shared.

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## Sharing the risk

Apart from the “public good” argument, there’s also a business case to be made.

Sharing knowledge means distributing risk and earning a better return on the investment dollar.

Let’s say an institution wants to apply a new technology to its internal health care processes. The innovation can be costly to develop, demonstrate, refine, implement and sustain over time. Its introduction may be complicated given the conservative culture that exists in the healthcare system which leads to slow adoption rates and, in some cases, outright resistance to change.

By sharing information about experiences and results, however, several groups with similar objectives can tackle the challenge together. This affords them a greater chance of coming up with solutions that are appropriate to the needs and the marketplace, while avoiding the duplication of costly and demoralizing errors.

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***f the “why” of knowledge management is relatively straightforward, the “what,” “how” and “who” are considerably tougher.***

What information do we really need? How do we assess quality and ensure its consistency? How do we know where the gaps are, and what should fill them? How do you persuade people to discuss the glitches and failures they have experienced, as well as the things that worked?

What format should information be in to make it most useful for others? What technological functions would make it most accessible? Indeed, in a field as human and personal as health care, what are the roles and limitations of technology?

Although we have little history to draw upon when contemplating these questions, Health Canada’s experience with HISP, the *Health Infostructure Support Program*, offered some useful pointers. A report, soon to be available on the OHIH website, evaluated this program and has taught us what worked and what did not, and helped us start to understand the steps necessary to translate information into knowledge that can be shared.

As we reflect on what information and knowledge we need to generate, manage and share, the question of *how* we ought to go about it necessarily arises.

## Connecting minds

Information and communications technologies of all sorts are available to connect people these days. But in the health sector, are they being used as they should? While many people have

vigorously embraced new networking technologies, others are only reluctant converts. Strapped for time or distrustful of technology, some health professionals are simply overwhelmed by the new digital world.

But since the clocks cannot be turned back, it makes sense to build trust and ease the transition, especially for the skeptics. Typically, there is comfort to be drawn from interactions with peers. The proliferation of informal networks over the Internet and at professional conferences and workshops attests to a hearty appetite for interpersonal communication - a prerequisite for sharing and developing knowledge.

Initiatives like Health Canada’s *Canada Health Infostructure Partnerships Program* (CHIPP) also foster partnerships that begin as short-term arrangements, but often evolve into lasting professional relationships. More formal structures, such as the Networks of Centres of Excellence and the Canadian Institutes for Health Research build more permanent ties.

Even so, there’s precious little yet in the way of organized communications mechanisms linking groups and individuals who would not normally be engaged in collaborative ventures.

## OHIH’s Information Exchange Initiatives

Through OHIH, Health Canada facilitates the exchange of information about the use of ICTs in health through its *ICTs in Health Infoway* website ([www.hc-sc.gc.ca/ohih-bis/](http://www.hc-sc.gc.ca/ohih-bis/)) which includes:

- ◆ maintaining lists of organizations and initiatives related to ICTs in health
- ◆ maintaining databases of relevant international conferences and online literature
- ◆ facilitating online access to full-text periodicals and a range of Health Canada publications
- ◆ collecting information on provincial and territorial government-sponsored initiatives, plans and priorities related to ICTs in health, and making this information
- ◆ providing information about professional development resources, including education and training
- ◆ organizing and supporting workshops, stakeholder conferences and electronic discussions.

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There should be, though, and they should be so comprehensive as to cut across disciplines and sub-sectors of the health care field.

But how do you make that kind of communication work? What's in it for the different players?

## **Carrots and sticks**

The truth is that the time crunch in the health care sector is real, severe and not about to improve. Even if they were inclined to share their knowledge, health professionals, researchers and administrators have enough to preoccupy them without worrying what others are doing.

There are few levers, although money is invariably one. Support grants are virtually always tied to a requirement to publish results. But is that enough? Is the information available quickly enough - even if it is posted on the Internet? Is it accessed and used by enough people? The right people? How do we know?

Where funding cannot compel communication, only incentives and a shared concern about the health of Canadians will work.

Suppose, for example, that you know of an initiative elsewhere that could benefit your own work. Clearly, it is worth your while to contact the group to inquire about their project.

But what if you do not know about their work, because they have yet to publish in the traditional literature? Could there be a mechanism to let you know, in a timely way, what is out there on the cutting edge, to connect your problem to a potential solution?

Conversely, let's say you possess the cutting-edge knowledge: you have developed a technological initiative that is serving you and your patient population well. What would motivate you to reach out and share the information with others?

It could be professional courtesy, pride in your accomplishments, or all-round generosity of spirit and good will. You might be the kind of person happy to show off an exciting innovation, or flattered to be solicited for your expertise.

It may be possible, on an intellectual level, to see the pooling of minds as inherently right. Rationally, it may also be perceived as contributing to system-wide efficiencies and economies of scale. But does that translate into individual altruistic action?

## **Leadership potential**

As the issues around the “how” of sharing information about the use of ICTs in health care begin to crystallize, we must also concern ourselves with the “who.”

Who will build the information-management capability we need? Who will pull information together, massage it into knowledge of a useable form, and actively bring that to the attention of those who might use it? Who can build a culture of sharing, with all the trimmings such as trust, leadership and accountability?

As the federal government in a federated health care system, we try to be helpful in this regard. After all, helping Canadians gain access to better health care and quality information are key priorities.

In our funding projects, we apply the same principles that exist in any public research institution: Information and knowledge must be shared through publication and accessible so that others can review, substantiate, refute, use or apply it.

Admittedly, though, this is a small piece of a huge health-care pie, with most of the work we support typically at the research, pilot or demonstration stage. Moreover, while the emphasis is on innovation and the development of new applications for ICTs in health, it is not necessarily on the mechanics of information and knowledge sharing.

Some of that is occurring on an institutional level, or within stakeholder groups such as Canada's Health Informatics Association, the Canadian Society for Telehealth and the major professional associations. For the most part, however, the issues are not being addressed on a system-wide basis.

While governments regulate many things in health care, they cannot (nor should they) compel information sharing. The federal government could, however, play the role of catalyst to spark progress in this endeavour. Our new ICTs in Health Initiatives Database is one step in that direction.

But, as the process gets underway, who would guide it along? Should there be a central co-coordinating agency? Does it need to be within the purview of the public sector, or could private enterprise perform the function? If so, how are issues like privacy and the public interest safeguarded?

To be sure, we do not know the answers; we may not even have identified all the questions yet. We do know, however, that it is time to engage, and everybody has to get involved.

The challenge is vast and one model won't meet all the needs. Just as car designers test their prototypes on drivers of all shapes, sizes and preferences, different groups bring different perspectives and competencies to the table.

And, no matter which solutions we choose, the outcome will surely touch all Canadians.

All of us who care about better health and a more efficient health care system have a powerful vested interest in getting it right.

***How do you think Canada should enhance its ability to share information about the use of ICTs in health care? We would like to hear from you. Please contact us at [www.hc-sc.gc.ca/ohih-bsi](http://www.hc-sc.gc.ca/ohih-bsi).***

