

Opinion research suggests that Canadians would welcome an expanded role for information and communications technologies in the health sector, provided their privacy and autonomy are protected.

OHIH, the Office of Health and the Information Highway, recently commissioned a review of the relevant opinion research. We wanted to know how stakeholders such as doctors, nurses, pharmacists and health system managers, as well as the Canadian public in general, feel about the use of information and communication technologies (ICTs) in health and health care.

We were gratified to discover that there are real and promising opportunities to expand the use of health-related ICTs - not just for the sake of trying out some new technology, but to actually improve health care delivery.

At the same time, however, we learned the need for caution: People have legitimate doubts and concerns that must be fully addressed before information and communications technologies meet their full potential in this vital field.

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We shop, bank, play games and book travel arrangements online. We chat with friends, relatives and complete strangers over e-mail and the Internet. And so, it's only fitting that Canadians see information and communications technologies as a potentially useful tool to enhance another vital facet of our lives: healthcare delivery.

According to a review of published opinion research commissioned by the Office of Health and the Information Highway, technology has become such an entrenched fact of Canadian life for both patients and health providers, that it may also be used to address some of the perceived woes in the healthcare system.

Canadians may, for instance, be willing to support new ICT applications geared toward reducing public health risks, monitoring drug safety, evaluating health trends and improving communications among service providers.

But if there's exciting new opportunity for ICTs in healthcare, our research also sounds a cautionary note. Canadians want assurances that their health data are not only being put to beneficial use, but



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PUBLIC SPEAKING

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that they will first be informed and asked for their consent. And, as sophisticated computer users, they also want to be certain that their personal privacy will always be preserved.

For those of us who share the view that well-designed ICT applications really can improve healthcare delivery, the polling research provides cause for optimism. But again, we need to be careful we are not overstating the research evidence.

Our study, conducted by Gary Breen and Associates, reviewed a range of opinion research completed between 1999 and late 2001 by Ekos, Angus Reid (now Ipsos-Reid), Pollara, PricewaterhouseCoopers, the Canadian Medical Association, the Ontario government, the Ontario Hospital Association and the many partners involved in the annual Health Care in Canada Surveys.

Little direct evidence

In all that material, it found no polls asking clear-cut questions such as “Do you believe the health care system would improve if we applied more information and communications technologies?” Indeed, when the public was asked about ways to solve the perceived health care crisis, ICTs were virtually never put forward as a possible solution.

And so we are left to extrapolate from the opinion research that does exist in the realms of health care, technology and - though rare - both combined.

The study confirmed some things we already knew or strongly suspected. For instance, health remains a top-of-mind issue for Canadians, even in polls conducted shortly after the September 11th terrorist attacks.

The study turned up some other interesting observations and avenues for further exploration. Most important, it revealed that the Internet and other ICTs are already widely used by both patients and providers, and that, under the right circumstances, that role can grow.

According to the research, doctors today remain the primary source of health-related information for Canadians, although the media, books, and family and friends are also influential.

The Internet, however, is also making major inroads. Already, nearly one-third of Canadians are browsing the Web for lifestyle and preventative care tips, as well as information on specific medications, symptoms and health conditions.

Even though younger Canadians are the biggest surfers, it is interesting to observe that many seniors browse the Web for health information at least occasionally and, in many cases, quite regularly. Residents of British Columbia, Alberta and Ontario are most likely to use the Net for health information, while Quebecers are the least likely.

There is also strong interest among doctors in various ICT applications. Indeed, doctors have generally developed a high level of comfort with technology: More than three-quarters of physicians in all age groups use computers, and the vast majority of them are also Internet users.

Variety of uses

The most common reason doctors sit down at the computer is to tap into research support systems such as Medline, check on-line clinical decision-support tools, correspond with other doctors over

secure e-mail links, and transmit X-ray and other electronic lab reports. Seven in 10 doctors use electronic health records for their patients, and more than half (56 percent) of them participate in professional chat groups.

Interestingly, only 36 percent of physicians communicate with their patients over e-mail, possibly because of the time involved and the fact that such consultations may not be reimbursed under provincial fee schedules.

The evidence, then, is that both doctors and patients are using technology in health-related applications. But is there room to explore additional uses, to expand the use of ICTs in health and health care delivery? The short answer is “Yes, but - “

Yes, people are receptive to new ways of using technology in all walks of life, and indications are that they could envisage beneficial uses in health care. But most are not prepared to forfeit either their privacy or their right to consent to the use of any personal health information.

And here’s where the question gets sticky: If the health care system needs reform, do Canadians think ICT applications could be developed to solve its problems? The answer is, we don’t know, because the question has never been asked in quite that way.

Solutions proposed

Two major surveys by the Ontario government and Ontario Hospital Association recently gauged public opinion on a number of solutions to these problems. These suggested solutions ranged from hiring more doctors and nurses, reducing waiting lists and permitting more private care to encouraging greater competition among providers, exploring the use of medical savings accounts and enhancing preventative care.

In neither of these surveys were ICTs listed among the options offered to respondents. We can assume that technology is generally perceived (even by pollsters and their clients) as an enabler of other solutions, rather than as a solution in its own right.

We are therefore obliged to mine other survey data to determine whether ICTs can provide at least part of the solution to the ailments of the health care system - specifically those related to challenges of communications and information management.

For instance, the data tell us that there is a widespread perception that health care is not adequately coordinated among providers. When asked whether physician reports are properly communicated to other health service providers for follow-up, only 13 percent of pharmacists and 20 percent of the public agree they are. Interestingly, even doctors and nurses themselves perceive a significant communications gap.

The majority of ordinary Canadians and health providers agree that such communication is important and should take place all the time. This, in turn, suggests the potential for valuable new ICT applications in health service delivery.

Indeed, the Healthcare in Canada Survey of August 2001 found that about nine in 10 Canadians from all regions of the country support the development of information systems that would make it easier to access and share information.

Against that backdrop, it is worth observing that other polls (even though they didn’t directly address health care specifically) found that the public appears comfortable with governments’ use of information technology. More than four in five Canadians say

governments are moving in the right direction by emphasizing ICTs, with younger people, men, and residents of the Atlantic Provinces among the most supportive.

Need for caution

But while some evidence suggest that Canadians would accept a range of beneficial new applications for ICTs in health care, there's also a need for caution.

First and foremost, our study demonstrates that Canadians have serious fears about the erosion of personal privacy and doubts about the security of the most popular mode of electronic communications - the Internet.

It is important to note, for instance, that 56 percent of Canadians feel they have less personal privacy than they did a decade ago, and nearly seven in 10 feel the threat will worsen over the next 10 years.

In particular, they fear for the confidentiality of their personal health information. Canadians see medical records as profoundly private, much like bank data such as personal identification numbers and credit card information. By contrast, only one in five would argue their employment history is their most pressing privacy concern.

When it comes to protecting people's privacy, public institutions are held to a very high standard. Indeed, more than four in five Canadians feel governments must adopt stronger security measures for electronic transactions than the private sector.

Paradoxically, however, it is public institutions that, by and large, enjoy the highest level of public trust. Nearly half of respondents in one survey said they trust the Government of Canada to safeguard their personal information and not share it without permission. That level of trust is even higher for Health Canada (57 percent). Banks and provincial governments are next on the trust scale, with cable, phone and retail companies hovering in the 25-30-percentage point range.

Security concerns

Concerns about Internet security are also real. While not focusing on health-related matters, one 2001 poll found that only 26 percent of respondents said they would submit credit card information over the Internet to a well known store. That proportion, however, represented a seven-percentage-point increase from two years earlier, perhaps indicating a growing comfort with Web-based transactions.

Even so, evidence suggests there is little awareness of the measures that currently exist to protect the privacy of Canadians and the security of their electronic transmission. While more than a third of respondents in one poll claimed a clear understanding of federal and provincial privacy legislation, the depth of their knowledge was not tested. Only one in seven people reported a meaningful understanding of computer encryption technologies, although the awareness rate rises dramatically among long-time Internet users.

As privacy concerns are addressed, so must people's need for personal autonomy be respected. Key to that is the principle of free and informed consent for any action that affects them - especially the release of private information.

For instance, more than three-quarters of Canadians would give governments or research bodies access to their personal health information if consent were first sought. Fewer than half would approve of the release of information, even when personal

identifiers are removed, if they had no opportunity to grant or withhold their consent.

The research clearly shows that if the consent issue is respected, Canadians are prepared to permit the use of personal health data to advance the public good. Two-thirds of Canadians would allow governments to make use of their personal data under those circumstances, although only half would extend the same rights to private companies.

The difference reflects distinctions in what people perceive as appropriate applications for health information. Addressing public health risks, monitoring drug safety, evaluating health trends and improving services are, for example, substantially more acceptable than helping manufacturers develop drugs or insurance companies assess risk.

Bright future

While no one has explicitly explored the future potential for information and communications technologies in preserving the health of Canadians and improving the functioning of our health care system, the available opinion research provides considerable scope for optimism.

We know that technology is already well accepted by patients and providers, and plays a key role in health and health service delivery. We also know that Canadians support an expanded role for ICTs generally and that they are looking for ways to improve the health system.

Thus, technology could play a role in improving the functioning of the health care system.

But if governments reach for technological solutions, they have to bear certain truths in mind: One, that people are profoundly concerned about the preservation of their personal privacy, and two, that Canadians demand the right to grant or withhold informed consent for the use of their personal health information.

While Canadians justifiably hold their governments to a high standard of accountability in terms of safeguarding individual privacy, it is worth noting that governments currently benefit from a high reserve of public trust. There are also opportunities to help people better understand existing privacy laws and technological innovations designed to enhance the security of their on-line activities.

For governments, health care decision-makers, providers and patients, these findings spell opportunity. With appropriate safeguards, information and communications technologies could help improve the quality, efficiency and effectiveness of health care delivery in Canada.

