Navigating the Information Highway: Doing E-Health Evaluations in a Changing World

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ACTION for Health

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Navigating the Information Highway: Doing E-Health Evaluations in a Changing World

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June 5, 2006

This presentation is made on behalf of the co-investigators and community partners participating on this project. The grant Principle Investigator is **Ellen Balka,** Ph.D., Simon Fraser University.

Presentation Overview
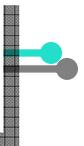
❑ Review Canada's policy goals and objectives in the e-health area

❑ Summarize ACTION for Health project

❑ Summarize evaluation findings thus far

❑ Discuss challenges of doing high quality evaluation work in the e-health and information technology areas

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The Problem

- ❑ $1.768 billion federal dollars have been invested in development of the Canadian Health Information Highway since 1997.

- ❑ The Canadian Office of Health and the Information Highway (OHIH) was created in 1997

  - ❑ Plays a key role in promoting the transfer of health

    information and knowledge to Canadians via the Internet

- ❑ Few resources have been directed towards monitoring whether or not investment in Canada's Health Information Highway is achieving desired results.

Examples of Canadian sites which provide health care information targeted to general consumers

Health Canada - www.hc-sc.gc.ca
Canadian Institute for Health Information - www.cihi.ca
Canadian Health Network - www.canadian-health-network.ca
Medical Council of Canada - www.mcc.ca
College of Family Physicians of Canada - www.cfpc.ca
Canadian Paediatric Society - www.cps.ca
Canadian Institute of Child Health - www.cich.ca
Child and Family Canada - www.cfc-efc.ca
Cyberisle Teen Health Web site - www.cyberisle.org
Canadian Women's Health Network - www.cwhn.ca
Community Health Promotion Network Atlantic (CHPNA) - www.chpna.ca
Eastern Co-operative Health Organization (ECHO) - www.echo-chn.net/echo/echo.html
British Columbia HealthGuide Online - www.bchealthguide.org
Healthy Ontario Online - www.healthyontario.com
HEALTHlink Alberta -www.healthlinkalberta.ca
Healthy Newfoundland & Labrador -www.healthy.nf.ca

Policy objectives that new information technologies in the health sector are intended to meet:

- ❑ That the use of information systems in health care will improve care and lower costs;

- ❑ That Internet-based delivery of health information will lead to patient empowerment and health improvements;

- ❑ That computerized information systems such as automated drug dispensing machines will improve patient safety and reduce costs.

A C T I O N for health

- ❑ Project funded by the Social Sciences and Humanities Research Council (SSHRC)

- ❑ Funded as part of SSHRC's larger Initiative on the New Economy (INE)

  - ❑ Integrated suite of programs to provide funding to explore the social, cultural and economic dimensions of the global, knowledge-driven new economy

  - ❑ The objective of (INE) is to help Canada and Canadians adapt successfully to and benefit from the new economy

- ❑ Our project began in 2003 and involves approx. 55 researchers, support staff, students and community members from a range of disciplines.

A C T I O N for health

Focus of Research

Our research investigates the role of technology in the production, consumption and use of health information

We address 3 specific areas:

- ❑ Issues arising for users (including lay users) as they consume Internet-based health information;

- ❑ Issues arising as new information technologies such as electronic patient records are introduced into health sector work;

- ❑ Ethical and legal issues that arise with increased use of information technology in the health sector.

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Project Goals

❑ Present a realistic perspective of the challenges associated with increased use of information technologies in the health sector.

❑ Highlight the role that pre-purchase and pre-implementation research & evaluation can play in helping to realize stated policy goals associated with use of technology in the health sector.

❑ Bring emergent ethical and legal issues to the attention of policy makers, assist our partners in determining whether or not the goals they are pursuing with the aid of information technology are being met, and offer suggestions about improving technology-related outcomes in the health sector.

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Work Undertaken to Date

Some examples of work undertaken:

- A evaluation of a provincial telephone and web-based information service
- A study of health information seekers in a library setting
- An evaluation of selected health information web sites
    - Tool to help community organizations evaluate their sites
- A study of the health information needs of young women with breast cancer
- A study of HIV/AIDS information exchange in three rural regions in Canada (funded also by CIHR)
- An implementation of an automatic drug dispensing system in a hospital setting
- An implementation of an electronic patient record system in a community clinic

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Health Information-Seeking Processes *

❑ Synergy Model

    ❑ Mass media alerts public to particular health topics

    ❑ Possible initial behavior change

    ❑ Individuals then turn to interpersonal networks

    ❑ Consult media (could be Internet) that provide more depth and detail

* Cited from: Internet and health communication : experience and expectationns. Ronald E. Rice, James E. Katz, editors.

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Health Information Sources

Include:

   a) formal sources, such as family doctors and other health professionals

   b) information sources, such as friends and relatives

   c) commercial and media sources, such as television, newspapers, and magazines

   d) Internet

Those seeking information generally consult multiple sources

Methods Used in ACTION for Health Projects

- ❑ Web surveys
  - ▪ Closed-ended questions

- ❑ Telephone surveys

- ❑ In-depth interviews

- ❑ Case studies

- ❑ Document analysis

- ❑ Content Analysis

- ❑ Vignettes

- ❑ Focus groups

- ❑ Development of question bank for health and information-seeking queries

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- *Healthcare information systems developed without reference to work practices and users' needs will be strongly resisted by users*

- *Users of health information and information technology used in the health sector are little understood (who is the public?)*

- *Needs assessments should precede technology expenditures instead of implementing technology because we can (for the sake of implementing technology)*

- *Vendors dictate and lead development projects, which do not necessarily meet users' needs*

- *There is potential for some of these technologies to address shortcomings in rural health, but are not well explored or exploited* at this time

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Findings about Information-Seeking Patterns

❑ Role for information intermediaries is growing, as there appears to be less dependence on physicians for more general health information.

❑ Patients know their physician is busy and so they are looking to others in the community to assist them in their search for health information. Aside from online options, consumers/patients using:

   ❑ Nurselines

   ❑ Librarians

   ❑ Community centres

   ❑ Health food stores

   ❑ Information gatekeepers in community

❑ Still unclear whether this is the result of a rise in patient empowerment or are patients simply spending less time with their physician and so they are forced to look elsewhere

   ❑ IT users by choice or do they have no other place to go? Still unsure

Who is currently using web-based health information, versus print or telephone advice lines?

2005 results from evaluation of BC HealthGuide Program (via a population-based telephone survey in province):

The individual component with the highest level of awareness is the BC HealthGuide Handbook (67%) followed by the BC NurseLine (47%), and BC HealthGuide OnLine (25%)

The individual component with the highest level of utilization is the BC HealthGuide Handbook (31%) followed by the BC NurseLine (11%), and BC HealthGuide OnLine (4%).

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Challenges of Doing High Quality Evaluation Work in E-health

❑ Assumption seems to be that technology is always good

❑ Evaluators need to get at non-users

❑ Evaluators brought in late in the process when health technology decisions have already been made

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Stay tuned for more findings!