

Health Policy Research Program Summary of Research Results

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Summary

Introduction

The Health Telematics Unit at the University of Calgary hosted the first **Telehealth Research Summer Institute (TRSI)** in July 2000. It has become an annual event focusing on research and evaluation of telehealth programs and telelearning initiatives in health care. The third annual TRSI was held on July 21 to 23, 2002. Participants included members of the public, professional, academic, and private sectors interested in telehealth implementation and sustainability. They were actively engaged in discussions of telehealth impact and recommendations to advance policy and research. Three themes underscored TRSI 2002: socio-economic, technical and policy impact of telehealth.

The **discussion document** is a compilation of the TRSI 2002 presentations and small group discussions as well as key references that provide additional insights. Supplementary material such as the discussion group notes and presentation slides will be posted on the HTU website early in 2003 at www.ucalgary.ca/telehealth. The TRSI 2002 discussion document is being widely circulated to colleagues with an interest in telehealth and e-health, including TRSI participants and speakers (all 3 years), Telehealth Coordinators, Canadian Society of Telehealth and COACH Board Members, University departments with health informatics programs, Assistant Deputy Ministers of Health, Industry leaders and others.

Issues related to the socio-economic, policy and technical impact of telehealth initiatives provided the focus for presentations and small group discussions throughout the TRSI 2002. Key ideas from the literature rounded out this thinking. Advancing the field of telehealth/e-health requires further discussion around priorities in three areas: research, evaluation and policy development.

Research Priority Areas

Research activities in telehealth and e-health have been gaining momentum in the past 5-10 years as more researchers enter the field and funds are allocated to this area of research. Research activities focus on developing conceptual thinking and theoretical frameworks necessary to advance the field. Clearly there have been many developments in the area of socio-economic factors that influence determinants of health as well as health indicators. Both the presentations and discussion highlighted a more recent focus on understanding the population health impact of interventions rather than solely focusing in the short term on the local project participants.

Research into the socio-economic impact of telehealth can advance in a number of areas, particularly around conceptualization of the contribution of telehealth initiatives to health and health care. This may include design of new health service models that seamlessly incorporate e-health or appropriate economic models to determine benefits. Within the context of determinants of health, this research could also determine appropriate indicators and measures that reflect the contribution of telehealth, including development of reliable and valid instruments for capturing data in these areas.

Not only does the research need to focus on health outcomes, but also extend into the impacts of introducing organizational change. Results of recent studies should be extended to inter-organizational changes when services cross local and international jurisdictions. Adoption of telehealth technology requires attention to a number of important research areas, including policy software, further advancing the telehealth interoperability process and human resources requirements.

Researchers must also attend and respond to the need for policy-driven research. As noted in the discussions around policy, or lack thereof, there is a continued need for framework development around e-policy research. Once policies have been established and implemented, for example policies to ensure EHR security, its implications need to be re-visited.

In an area of rapid change and development, research around 3rd wave, intelligent technologies, including digital remains critical. As demonstrated by the work completed to date on interoperability and standards on many levels, collaboration among partners in industry, government, research and practice is required.

Evaluation Priority Areas

Evaluation activities are an important aspect of applied research and require a sound conceptual basis for the selection and use of tools. Frameworks that are valid and reliable as well as used consistently in the field are needed to provide useful, comparative data. The “knowledge translation” activities that move research results into practice are an important aspect of evaluation. These could be strengthened through adopting practical mechanisms to apply research findings in evaluation framework development and data collection tools. In

much the same way as common health indicators have been adopted, policy intervention may be required for the consistent use of e-health indicators. Funding programs such as CHIPP illustrate that this strategy is possible on a national level.

As the small group discussion on Day 3 illustrated, it was challenging to consider the unanticipated and potentially undesirable effects of implementing telehealth/e-health initiatives. This is partly because those involved in implementation tend to be champions who see the benefits. Evaluation can play an important role in determining the unintended consequences of adopting this technology. Questions that might be asked include: Is there an optimal mix of face-to-face and technology mediated services in a community? If so, how do we determine it? While a balance of services may be sought based on financial issues (e.g. it is more cost effective to provide video-consultation to members of a community than to financially support a specialist to live in the community), the unintended consequences may be the destruction of services in a small community as physicians do not see enough patients to stay in business.

Evaluation should extend to organizational factors including human resource implications in program implementation. This includes training for health care professionals who deliver e-health services, as well as for telehealth coordinators, researchers, policy makers, and decision makers. A broader training base may also increase awareness of the “glocal” aspect of policy, i.e. the local and global implications, as well as the need for policy interrelationships at multiple levels.

Evaluation should also include continued testing of interoperability standards in practice. This includes an active, continued awareness of interoperability testing being communicated at national and international venues.

Policy Development Priority Areas

While the importance of policy and resulting policy issues have been recognized as part of the development of telehealth initiatives, integrating e-health services into the traditional delivery system requires broader thinking than that required to ensure a local project or program is successful. Policy is both necessary to support integration as well as itself must be integrated at regional, national and international levels of decision making. It is necessary to establish globally acceptable policy principles and domestic policy.

Sound evidence of the socio-economic benefits of e-health initiatives is needed prior to the move to implementation and integration. Translation of these research and evaluation findings into policy is a critical factor in moving this agenda forward. Clearly there needs to be champions in all sectors: academia, government, industry and practice for this to occur. Achieving this will require taking advantage of opportunities for increased participation across groups, for example, including more policy developers in planning and implementation.

Overall Recommendations

A number of issues were common to all three themes of the TRSI and recommendations for their resolution, include:

- Sound policies related to the human resource implications resulting from e-health initiatives are required. These should include results of research and evaluation into the changes in professional roles, organizational change management and stakeholder readiness to accept the change.
- Participants agree that telehealth sustainability depends on integration into existing services rather than initiatives being seen as “adjuncts.” A number of policy considerations arise from this and require attention from funding bodies, researchers, policy makers and professional organizations (e.g. Canadian Medical Association, Canadian Nurses’ Association). These include:
 - Policy implications related to remuneration and licensure are slowly being resolved. While the need for integration will continue to challenge policy development, it must remain a core tenant.
 - Policy considerations must support integration of e-health with traditional services, as well as with the Electronic Health Record.
 - Policy development must consider both the local and global impact.
- While participants generally recognized there are benefits to developing consensus on standards and evaluation tools/methods, implementation challenges remain. Leaders in research and evaluation need to take a greater role in the translation and dissemination of results to support a consensus building approach.

Summary

The annual TRSI provides a forum for interested participants from industry, government, academia and practice to actively discuss current ideas in e-health. The TRSI 2002 themes – socio-economic, technical and policy impact of telehealth – provided a framework for discussion and recommendations for future directions.

Dissemination of this discussion document will provide additional opportunities to not only stimulate discussion and debate around relevant issues, but also engage a wider audience in influencing e-health policy, practice, and research. Continued discussion and debate of relevant issues will continue at TRSI 2003 on June 25-27.

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In addition to the above Summary, the full report can be accessed in the following ways:

- The print version of the full report can be obtained in the language of submission from the Health Canada Library through inter-library loan.
- An electronic version of the report in the language of submission is available upon request from Health Canada by e-mailing rmddinfo@hc-sc.gc.ca.

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