



Michael Smith Foundation for
Health Research

Health of Population Networks

A Strategy for Knowledge Translation & Exchange

Final Report to the KTE Working Group

30 April 2009

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Highlights

- The Health of Population Networks (HoPN) radiate the essence of high quality knowledge translation and exchange at the Michael Smith Foundation for Health Research (MSFHR).
- Knowledge Translation and Exchange (KTE) is insufficiently demonstrated and accounted for in HoPN Evaluation reports due to the structure of the reporting protocol.
- Opportunities exist for better selection and tailoring of KTE activities to the goals and needs of each network.
- The HoPN should share infrastructure and resources to increase KTE capacity and return on KTE investments.
- The HoPN can be viewed as a knowledge translation and exchange arm of the MSFHR.

Background

Knowledge Impact Strategies Consulting Ltd applied for and received a contract from the Health of Population Networks (HoPN) to develop a Knowledge Translation and Exchange (KTE) Strategy for the networks (Appendices 1-3).

Prior to applying for the contract, Knowledge Impact Strategies had no relationship with the HoPN or its members. It did however understand the challenges and successes of KTE in research networks, having led, participated in, and consulted to networks in health, fundamental, and behaviour sciences including those of the National Centres of Excellence and the Canadian Institute for Advanced Research. It also had extensive and long-term relationships with research users in governmental policy offices, practice, non-governmental community service, and the public in areas relating to health, education, and social services.

The contract specified that:

In conjunction with the network co-leaders and managers the KTE Specialist will develop the KTE Strategy which will include:

- 1. Development of a KTE framework for each network*
- 2. Implementation plan(s)*
- 3. Processes to access tools and resources for researcher KTE to enhance their own research programs*
- 4. Plan for sustainability of KTE resources and development*
- 5. Processes for building relationships that allow decision-makers to enhance their use of research evidence, and to suggest areas where research is needed*
- 6. Identification of best KTE practices within research Networks*
- 7. Development of a provincial HoPN KTE Strategy*

Contract work was conducted from September 2008 through April 2009.

Fact finding

- Websites
- 2007 & 2008 (drafts) Evaluations
- Newsletters
- Solicited and unsolicited materials from network coordinators

The development of an effective and tailored KTE Strategy for the Health of Population Networks required a thorough understanding of the mandate, structure, and activities of the Michael Smith Foundation for Health Research (MSFHR), of the HoPN as a whole, and of each of the 8 networks. Knowledge Impact Strategies gathered information at the start of the project by examining the networks' websites and newsletters, and by reviewing MSFHR's frameworks and guidelines. For example, we created a logic model to help us navigate through the MSFHR structures and programs, and we studied both the MSFHR Infrastructure Programs Review and the Networking Infrastructure Revised Guidelines. We examined the MSFHR Development, Formative, and Progress Reviews for the HoPN as well as the MSFHR Evaluation Framework and the Cross-Network Satisfaction Survey results.

We used the 2007 Evaluation Reports of each network, and a subset of drafts of the 2008 Evaluation Reports, to catalogue KTE activities of the HoPN. Knowledge Impact Strategies staff became members of each network to identify additional KTE activities from the networks' online newsletters. We received announcements and descriptions of KTE activities from the coordinators of the HoPN networks, as well as information about the Health Authority Liaisons. Materials were generously provided both spontaneously and in response to our questions.

Consultations with KTE Working Group and network personnel

- Face-to-face
- Teleconferences
- Emails
- Conference participation

In addition to print and electronic resources, Knowledge Impact Strategies investigated the HoPN through dialogue with the KTE Working Group which was mandated to oversee our development of the KTE Strategy and related outputs. We discussed KTE objectives of the HoPN with members of the Working Group and with representatives of all 8 networks at meetings in Vancouver and Victoria from 29 September to 3 October 2008. Throughout the term of the contract, reports, updates, comments, and revisions of materials and procedures were exchanged with the Working Group and with network coordinators, co-leaders, members, and staff through teleconferences and emails. We offered to the networks KTE teleconference consultation sessions. In preparation for the consultation sessions, we gathered network perceptions of KTE challenges and achievements using our KTE Research-to-Action Inventory. Independently of the contract, we gained further insight into the work of the HoPN through participation in KTE events of two networks.

Research

- Investigations of HoPN researcher CVs
- Investigations of other health networks
- Examination of KTE resources

Finally, through websites, research databases, and other internet resources, Knowledge Impact Strategies investigated the scientific work of HoPN researchers and the practice and policy activities of HoPN stakeholders in Health Authorities, NGOs, and provincial government. Our goal was to increase our understanding of the BC context for the development of an effective provincial KTE Strategy as mandated in our contract. Comparisons were also made amongst other health research networks within and beyond British Columbia. We also examined documents and websites to develop a strategy that would respond to requests for KTE resources.

Relative to the terms of the contract, the results of the work of Knowledge Impact Strategies can be divided into two parts: those relating to the development of an HoPN Framework (1, 2, 6, and 7 above) and those relating to KTE processes to serve the needs of the individual networks (3, 4, and 5 above).

Development of a KTE Framework

- Environmental Scan of HoPN KTE activities and resources
- Guidelines for sustaining the Environmental Scan
- KTE Research-to-Action Assessment Landscapes
- Guidelines for sustaining KTE Assessment Landscapes
- Promotional Booklet of HoPN KTE Research-to-Action Activities
- Promotional Booklet template

Our first step in the development of the KTE Framework was to enter into a spreadsheet all network examples that qualified as KTE Activities or KTE Resources. The spreadsheet was constructed as an Environmental Scan. Network examples were obtained as described in the Method section. Because of the ongoing KTE productivity of the networks, and because the Environmental Scan was meant to assist the development of a KTE Framework and was not an evaluation in time, the Scan was exemplary but not exhaustive.

Knowledge Impact Strategies considered activities and resources to be examples of KTE if they were directed in some way to facilitating research processes and productivity or to mobilising research findings. KTE Activities were distinguished from KTE Resources based on whether the output was a live or electronic interactive event (KTE Activity) or a physical entity such as a newsletter or pamphlet (KTE Resource). The distinction, though not always unilateral, can be relevant to KTE investment planning in that Activities and Resources generally require differing infrastructures for development and execution.

The HoPN Environmental Scan (Appendix 4) was constructed by applying the 5-point Research-to-Action paradigm¹ created by Knowledge Impact Strategies to account for and broadcast KTE achievements. The paradigm was influenced by Rejean Landry's description of knowledge transfer paraphrased as: *The process of getting research findings and products into the hands of key audiences, and using research to inspire people to think and act differently*². Each of the 5 categories was created from the reference point of stakeholders, and reflected what Andrew Van de Ven describes as *engaged scholarship*³.

¹ Knowledge Impact Strategies Consulting Ltd. (2009, March). *Research-to-Action: A 5-point system for defining the aim and impact of knowledge transfer activities*. Waterloo, ON: Author.

² Landry, R., et al. (2006). *Knowledge translation planning tools for stroke researchers*. <http://kuuc.chair.ulaval.ca/ctci/>

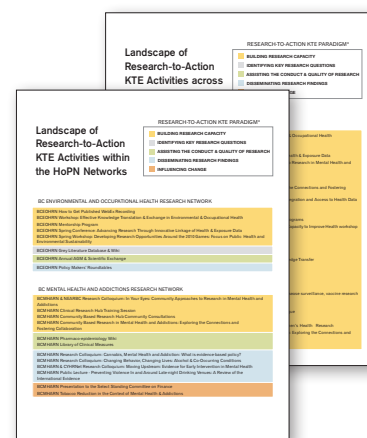
³ Van de Ven, A. (2007). *Engaged scholarship*. New York: Oxford University Press.

The Research-to-Action paradigm identifies 5 intended impacts of KTE as:

- Building capacity for research – within and beyond the university
- Identifying key research questions – for the welfare of the population and/or the management of the network
- Assisting in the conduct and quality of research – from grant funding through scientific publication
- Disseminating research findings – to practitioners, policy makers, and the public
- Influencing change – by building active relationships with those who can use HoPN research to solve problems

KTE Activities could be categorised as serving one or more of the intended impacts as demonstrated in the Environmental Scan. We prepared Guidelines (Appendix 5) for networks that wanted to use the Environmental Scan method to identify and monitor their KTE achievements in the future.

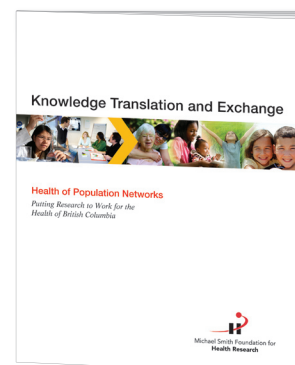
The Environmental Scan was used to create Landscapes of KTE Activities that demonstrate the direction of KTE efforts across and within the networks (Appendices 6 and 7). The colour-coded Landscapes were designed as an organisational tool that can aid the HoPN as a whole, individual networks, and MSFHR evaluators in capturing the strengths and direction of KTE Activities. The Landscapes facilitate decision making with respect to KTE investments. Individual differences amongst the networks in magnitude and focus of KTE Activities as portrayed in the Landscapes are described below. Guidelines for creating Research-to-Action Landscapes can be found in Appendix 8.



In addition to the Environmental Scan and Landscapes based on the Research-to-Action paradigm, Knowledge Impact Strategies created a KTE Promotional Booklet for the HoPN: *Knowledge translation and exchange at the Health of Population Networks: Putting research to work for the health of British Columbia* (Appendix 9). The Booklet is an effective method of broadcasting the KTE successes of the HoPN as a whole. It also serves as a global model of KTE accountability for other organisations and networks, and as a test of concept for the Research-to-Action paradigm. In response to a request from the KTE working group, a template in Adobe InDesign™ was provided (Appendix 10) for use by individual networks that wanted to create their own booklets.

KTE Consultation Process

- KTE Consultation Invitation and KTE Inventory
- Delivery and explanation of Research-to-Action Landscapes
- Results of KTE Inventory
- Overview of KTE Strategic Reports to networks
- Development of a process for compiling KTE resources
- Sustainability plan for KTE resources
- Creation of method to increase the usefulness of KTE resources



The Framework provided a KTE strategy applicable within and across the HoPN. Knowledge Impact Strategies also provided KTE advice to individual networks. A consultative process was used to explain and stimulate self-evaluation of KTE Activities. The consultations were designed to help networks tailor their KTE investments to their individual characteristics and mandates.

Consultations were conducted by teleconference. First, networks were sent a letter of invitation to participate in the consultations along with a KTE Consultation Inventory (Appendix 11). The KTE Inventory asked networks to characterise their efforts along the 5-point Research-to-Action paradigm and to characterise their KTE resource needs. Definitions of the 5 Research-to-Action categories were also included. Shortly before the consultations, networks were sent the Research-to-Action Landscapes (Appendices 6 and 7) along with a letter clarifying their method of construction.

KTE Inventories were typically completed by network coordinators with input from co-leaders and research staff. Five networks accepted our consultation invitation, and five networks completed and returned the Inventory. One network completed the Inventory but did not participate in a consultation session, and one network did not complete the Inventory but participated in a consultation session.

The KTE Inventories we received from the networks indicated that self-evaluations of KTE Research-to-Action skills matched fairly well the impressions formed by Knowledge Impact Strategies. Mismatches occurred in only a few instances when a network seemed to underestimate its abilities in a given category. The Inventories also showed that networks wanted KTE resources, especially tips and tools for forming stakeholder relationships and for assessing the impact of KTE. A summary of network responses to the KTE Inventory is presented in Appendix 12.

Coordinators, co-leaders, and other network staff participated in the consultation teleconferences with Knowledge Impact Strategies. The sessions ranged from 1-2 hours in duration. Although the content of the discussions varied from network to network, all consultations followed a similar structure. Knowledge Impact Strategies first described its methods and work to date that led to the creation of the KTE Research-to-Action Landscapes. The network's Inventory responses were then discussed and illustrated with examples of past and planned KTE activities. Most of the consultation focused on the particular research characteristics of the network and the opportunities and challenges they posed to the network's KTE development. Finally, needs for KTE resources were explored. Conversations with the networks were candid and considered by Knowledge Impact Strategies as confidential.

Meeting Minutes of the consultations were created and used by Knowledge Impact Strategies to develop KTE Strategic Reports for each network. Strategic Reports could not be prepared for networks that did not participate in consultations because we had no opportunity to discuss and learn about the network's KTE complexities and concerns, factors on which strategies were individualised.

Each Report contained an overview of what we understood through the consultations to be the tapestry, hopes, and challenges of the network. It was followed by strategies for addressing challenges and implementing KTE innovations. Knowledge Impact Strategies provided practical suggestions directed at both short- and long-term goals. Suggestions were related to planning, mechanisms, and accountability for KTE.

Because the Strategic Reports are proprietary to each network, they are not included herein. Instead we summarise the results of consultations across the networks as follows.

The most frequently discussed Research-to-Action KTE challenges were:

Building Research Capacity

- To inform population health issues across research areas that are extraordinarily diverse
- Without creating unrealistic expectations of labour-intense community-based research
- In young faculty who need efficient research publications for meeting tenure criteria
- Of community partners who may be drawn to unwieldy or intractable research questions
- In jurisdictions not well served by university expertise

Influencing change through engagement of researchers and policy makers even though

- The academic research process is not aligned to urgent policy needs
- It is difficult to perceive, measure, and credit KTE impact on policy

Less attention was paid to Identifying Key Research Questions, although the category was interpreted by some networks as identifying research priorities of the networks and by others as identifying urgent health concerns of British Columbians. Both interpretations position the category as a worthwhile KTE investment.

The value and importance of KTE as a route to research uptake in policy and practice was acknowledged. However, some networks assumed that the opportunities and responsibility for the uptake of research findings lay with the researchers and the networks instead of with the stakeholders.

Resources and tools for KTE were requested by the networks especially those relating to using KTE to build relationships with stakeholders and to assessing and accounting for KTE activities. The networks invariably expressed the view that better methods of KTE reporting, including qualitative assessments, should be adopted by the MSFHR. Least requested were research articles relating to KTE theory or concepts. Networks wanted KTE resources in the form of tips and exemplars.

In response to the KTE Working Group and individual network consultations, Knowledge Impact Strategies developed an interactive process for providing and sustaining KTE resources. We addressed the problem based on the following perspective.

Countless journal articles and websites have been created to provide information for understanding and conducting KTE. They are readily accessible via the search engines of Google or Google Scholar using key words such as knowledge transfer, knowledge mobilisation, knowledge translation and exchange, or any of the 100 or more synonyms that have been identified.



A Google search using the key words *knowledge translation and exchange* returns almost 900,000 hits. A search using the key words *knowledge transfer* returns almost 30 million hits. There are journals (e.g., the Millbank Quarterly, Implementation Science, Journal of Knowledge Management, etc.) and organisation websites (e.g., the Canadian Health Services Research Foundation, the Canadian Institutes for Health Research, Institute for Work and Health, etc.) that house a wealth of KTE resources. Researchers and research users interested in KTE theory, concepts, or practice can readily find general and specialised materials.

The sheer volume and diversity of already-existing KTE resources makes identification of resources for practical use daunting in time and effort. Many articles are directed at KTE theory, concepts, or opinion pieces. Few contain sufficiently incisive “how to” solutions.

In light of this dilemma, Knowledge Impact Strategies suggests that the HoPN consolidate KTE development and investments and share KTE examples and “lessons learned” in a KTE Resource Centre located on WebEx. We also propose a strategy to build and sustain the Resource Centre. The strategy includes the designation in each network of a part-time KTE Assistant who would

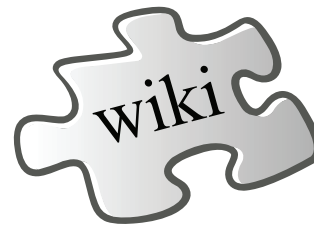
- Monitor and maintain network materials on the Resource Centre
- Find, catalogue, and upload KTE resources
- Direct members to resource materials from across the networks
- Liaise with the other KTE Assistants to develop and share KTE infrastructures and materials such as templates, dissemination mechanisms, costs, and so forth
- Assume the role of HoPN Resource Centre Leader on a rotating basis across the networks

The Resource Centre would contain materials from the networks including a database of HoPN KTE activities based on the Environmental Scan (Appendix 4). Networks would update their database contributions at regular intervals. KTE Assistants would be the networks’ contacts for questions about their networks’ KTE activities, their development and impact.

The Resource Centre would also provide KTE materials from outside the HoPN requested by both academic and non-academic network members. KTE Assistants would catalogue and place resources into the Resource Centre in folders representing the 5-point Research-to-Action paradigm. The KTE Resource Centre would

- Stimulate increased KTE collaboration amongst the networks
- Compile a range of KTE tools and materials in one location
- Address members’ needs for KTE knowledge and capacity development
- Provide a ready source of content for promotional and accountability reports of KTE activities
- Capitalise on WebEx facilities

KTE Assistants would create wikis to provide interactive responses to members' requests for KTE resource support. This means that instead of offering a repository of KTE resources only, the HoPN would offer the opportunity for dialogue and shared knowledge around common network KTE questions. (Cisco has announced the addition of wiki tools on WebEx, or the HoPN could link to one of the freely available wiki sites from WebEx). Each wiki would include the KTE Assistants' summaries and impressions of the resources collected to date, relevant URLs, as well as comments from members on particularly useful articles. The wiki would also give members the opportunity to share solutions to the problem addressed by the question posed by the wiki.



For example, members might ask: *How can we best prepare graduate students to meet the growing demands for KTE by granting agencies and decision makers?* A KTE Assistant would find and upload articles on the topic to the Resource Centre and then create a wiki identified by the question. The wiki would include the list of citations of uploaded articles, relevant URLs, comments on the articles and websites, tips from network members, success stories, and so forth. The articles and wiki would be available to, and informed by, members across the HoPN, and honed and monitored collectively by the KTE Assistants. The collection of wikis would represent an interactive Frequently Asked Questions resource for the HoPN. It would also represent a MSFHR KTE innovation.

Based on fact finding and research related to the Health of Population Networks, Knowledge Impact Strategies Consulting Limited concluded that

- ***The Health of Population Networks radiate the essence of high quality knowledge translation and exchange at the MSFHR.*** This was reflected in the impressive number of KTE activities initiated, as well as the enthusiasm, interest, and energies that were devoted to KTE. KTE is alive and well in the HoPN.
- ***KTE was insufficiently demonstrated and accounted for in the MSFHR Evaluation reports.*** This was due to the structure of the Evaluation KTE reporting protocol, namely to what was asked and allowed. As a result there was some uncertainty within the networks about the depth, quality, and importance of their KTE outputs. For the most part, the networks knew what to do with respect to KTE and did it, but they lacked an effective mechanism for verifying that they were on the right track.
- ***The Research-to-Action paradigm of Knowledge Impact Strategies provided an effective system for demonstrating the meaningfulness of HoPN KTE outputs.*** For example, workshops, carefully designed to engage, train, and retain interdisciplinary graduate students, exemplified the use of KTE to build research capacity in areas critical to emerging health crises. Research-to-Action was also exemplified by the creation and interactive dissemination of guidelines for analysing factors that can nuance research findings of relevance to improved population health. The Research-to-Action paradigm showcased and reinforced the successes of KTE in the HoPN.
- There are differences in KTE needs and expectations amongst the networks that are attributable primarily to the differing natures of their areas of research and the people who can use that research. ***There are opportunities for better tailoring of KTE activities within each network.*** For example, some research fields need increased research capacity within the health community and increased opportunities for community interests to bear on academic research. For those networks, it might be best to dedicate KTE to community research workshops, and to KTE events that bring researchers and members from the community together to collaboratively design key research questions. Other networks have research findings that are ready to be brought to bear on health policy development. Those networks might dedicate their KTE efforts to more effective dissemination of research results in policy briefs and public forums, and to gathering together multilateral teams (researchers, practitioners, interest groups, policy analysts, economists, etc.) to debate policy alternatives and inspire new research directions.
- The structure, research fields, and diversity of the HoPN networks, when set against the Research-to-Action-paradigm, provide a comprehensive model of KTE process and appraisal for other MSFHR programs as well. Above all, the HoPNs exemplify the function of KTE. ***In many ways the HoPNs can be viewed as a KTE arm of the Foundation.***

Based on KTE consultations with individual networks, Knowledge Impact Strategies concluded that the HoPN could invest in the following actions.

- ***Increase research capacity and uptake by developing community-university KTE service centres modeled after European Union Science Shops to***
 - Operate through student internships, mentorship, and university and college courses
 - Function as win-win ventures for both community-driven KTE and engaged scholarship
 - Increase the understanding and practice of KTE by faculty and students
 - Connect basic and applied researchers via community-inspired secondary research
 - Stimulate higher-impact student theses and faculty reports
 - Promote the HoPN to policy and practice as a model of KTE innovation
- ***Design KTE events for policy development that***
 - Identify and forecast key policy-relevant research questions
 - Function as interactive, collaborative working sessions rather than passive dissemination
 - Engage civil servants in policy offices to propel bottom-up uptake of research findings
 - Stimulate formative feedback on KTE procedures during interactive sessions
 - Elicit testimonies of policy participants that address the value of network KTE
- ***Be encouraged and assisted in using the Knowledge Impact Strategies 5-point Research-to-Action paradigm*** and its environmental scans and landscape methods to effectively record, analyse, plan, share, and account for KTE activities and resources
- ***Create annual booklets to more effectively promote KTE achievements*** across and within networks by using the template provided by Knowledge Impact Strategies
- ***Create an interactive KTE Resource Centre*** as proposed above

Finally, the HoPN should reconsider the assumption that researchers are responsible for research impact in light of the fact that researchers have no authority over the decisions of policy makers, practitioners, or the public. Researchers do have the responsibility and power to effectively and efficiently mobilise research concepts and findings to decision makers. Instead of auditing the networks by asking: Did your research have impact beyond the academy? Assessors should ask: ***Did you make your research available to decision makers for possible uptake?*** The latter question more reasonably addresses the sufficiency and success of KTE efforts and investments.

Recommendations

- The MSFHR should view and support the HoPN as an exemplary vehicle for Knowledge Translation and Exchange with policy makers, practitioners, and the public for the health of British Columbians.
- HoPN MSFHR Evaluation protocols should contain more useful and pragmatic methods of describing and accounting for KTE activities, such as the 5-point Research-to-Action paradigm developed by Knowledge Impact Strategies.
- The HoPN as a whole should review, collate, and broadcast its KTE activities annually, and identify and reward best practices.
- Fields of research across the networks differ in terms of KTE needs. Best KTE practices should be viewed as those that are practical and well-tailored to the characteristics of each area of research and its users, not prescribed by external conceptual models.
- Where reasonable and appropriate, students, faculty, and stakeholders should join together to create KTE service centres that link community and university knowledge and resources. KTE service centres can be informed by the international and University of Waterloo Science Shop model but shaped to the characteristics and needs of each network.
- KTE in the form of secondary research reviews on accumulated evidence should be a prerequisite and gateway to HoPN policy- and community-based research.
- When possible, community-driven reviews of the literature should also be written and submitted for journal publication so that they can be disseminated to the academy and credited to the students and faculty who contribute to them.
- The HoPN should share KTE infrastructure including human and material resources as well as services
 - For economy and standardization of KTE investments and outputs
 - To train students and faculty to conduct KTE efficiently and effectively
 - To brand the HoPN as an MSFHR KTE achievement.

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